

LEGAL NOTICE NO.

THE PETROLEUM ACT
(Cap. 308)

DRAFT PETROLEUM (UPSTREAM AND MIDSTREAM ENVIRONMENT, HEALTH AND SAFETY)
REGULATIONS, 2026

IN EXERCISE of the powers conferred by section 126 of the Petroleum Act (Cap. 308), the Cabinet Secretary, Ministry of Energy and Petroleum, on the recommendation of the Authority, makes the following Regulations –

PART I – PRELIMINARY		
Citation	1.	These Regulations may be cited as the Petroleum (Upstream and Midstream Environment, Health and Safety) Regulations, 2026
Interpretation Cap. 308	2.	In these Regulations, unless the context otherwise required – “Act” means the Petroleum Act; “Addendum” is a supplementary document submitted to update, clarify, or extend specific sections of an accepted application without replacing it entirely and addresses limited scope changes and may accompany minor, significant, or major revisions as required. “ALARP” means as low as is reasonably practicable, being the point at which residual risk is tolerable, and further reduction would be grossly disproportionate to the cost, time or effort required. “Asphyxiant gas” means any gas the release of which may create asphyxiating conditions due to displacement of oxygen; “Authority” means the Energy and Petroleum Regulatory Authority established under the Energy Act (Cap. 314); “Blowout” means an uncontrolled release of hydrocarbons from a well due to total loss of pressure control. “Bow-Tie Analysis” means a risk visualisation method showing the relationship between causes, preventive barriers, consequences, and mitigative barriers for a specific hazard. “completion and well workover fluids” means fluids used to clean the wellbore and stimulate the flow of petroleum, or simply used to maintain downhole pressure (this may include solid material, residual drilling fluids, weighted brines or acids, petroleum, methanol and glycols and other types of performance-enhancing additives; after use, these fluids may contain contaminants including solid material, oil, and chemical additives); “Dimensioning fire” means a fire which, in accordance with the defined acceptance criteria under these Regulations, represents an unacceptable risk, and

		which consequently serves as a basis for the design and operation of installations and facilities; “disposal well” means a well, in which fluids associated with oil and natural gas production are injected for water disposal or any other purpose; “domino effects” means a secondary event triggered by an initial incident, increasing its severity or impact. “drilling waste” means all materials or chemicals, solid liquid or gases, associated with drilling for exploration, development, or production of crude oil or natural gas, and directional drilling for pipeline construction, including the solid materials, fragments of rock and other materials brought to the surface during the drilling process and any liquid mixture of water, sediment, drilling muds, chemical additives or other wastes that are pumped into a borehole while drilling and are specifically related to drilling activity; “emergency” means a present or imminent event, outside the scope of normal operations, that requires prompt action and coordination of resources to protect the health, safety or welfare of people or to limit damage to property and the environment; “Emergency Shutdown System” means a system that automatically initiates safe shutdown of equipment or processes during hazardous conditions. “Environmental Liability Policy” means an insurance policy that covers the cost of restoring damage caused by petroleum operations, including pollution of land, water, and air, and damage to biodiversity, under the Act. “Environmental Impact Assessment (EIA)” has the same meaning assigned to it under the Environmental Management and Co-ordination Act (Cap.387) “External Dependencies” means critical services, infrastructure, or third-party operations necessary for the safe operation of the facility. “fire division” means a wall or division made of incombustible materials or an open-air separation designed to minimise the probability of a fire spreading horizontally or vertically; “Flaring” means the combustion of hydrocarbons without the application of the resulting heat or gases for any useful purpose. “flaring and venting management plan” means a projection of flaring and venting quantities and associated emissions over the lifetime of the installation, with an associated plan of actions/projects/investments which the licensees plan to undertake to manage and minimise flaring and venting quantities and associated emissions. “flowback fluid” means a water-based solution that flows back to the earth's surface after completing the hydraulic fracturing of a reservoir (this may include chemical additives, mud, clay, dissolved metal ions and total dissolved solids); “fugitive emissions” means any releases of gas from lease production, gathering, compression, or gas plant equipment components, including emissions from valve stems, pressure relief valves, flanges and connections, gas-operated valves, compressor and pump seals, pumping well stuffing boxes, casing-to-casing bradenheads, pits, and sumps, that cannot reasonably be captured and sold or routed to a vent or flare;
--	--	---

		“gathering system” means facilities employed to collect, compress, and transport petroleum to another petroleum gathering system, a plant, compression facility, transmission line or other facility; “Hazard and Operability (HAZOP)” Study means a detailed, systematic examination of process deviations, their causes, and consequences to identify operability and safety risks. “Hazard Identification” means a structured process used to systematically identify hazards, causes, and potential consequences at a facility or operation. “Hazard” means a source, situation, or event with the potential to cause harm to people, property, environment, or operations. “Hazard Profile” means the overall characterization of hazards associated with a facility or operation, including type, severity, likelihood, and escalation potential. “Hazardous substance” means any chemical, waste, gas, medicine, drug, plant, animal or microorganism which is likely to be injurious to human health or the environment; “Hydrostatic testing water” means water used in pressure testing to detect leaks and verify onshore equipment and pipeline integrity (chemical additives such as corrosion inhibitors, oxygen scavengers, biocides and dyes may be added to the water to prevent internal corrosion or to identify leaks); “incident” means an unexpected event or occurrence that does not result in serious injury or illness but may result in property or environmental damage; “Interface” means points where systems, activities, contractors, or organisations interact and may create shared or transferred risks. “Loss of Containment” means unplanned release of hydrocarbons or hazardous substances from their containment system. “Major Accident Hazard” means any hazard with the potential to cause multiple fatalities, severe environmental damage, or major property loss. “major accident” means an occurrence such as a significant fire, explosion, release of a substance, failure of equipment or materials that results from uncontrolled developments in the course of petroleum operations, that results in loss of life, personal injury, property damage, and/or environmental damage; “Major Revisions” means a substantial update to an accepted Safety Case arising from a change that significantly alters the major accident hazard profile, and includes modifications that introduce new hydrocarbon inventories, new ignition or escalation risks, or require new hazard studies or ALARP demonstrations. “midstream operator” means, as the case may be, a project proponent, a licensee, a midstream permit holder and their agents; “Muster Point” means a designated safe location where personnel gather during an emergency. “NEMA” means the National Environment Management Authority established under the Environmental Management and Co-ordination Act, 1999 for the time being; “NORM” means Naturally Occurring Radioactive Material; “officer” means a person who is employed by a government agency or authorized by a government agency to execute any function under the Act and these Regulations;
--	--	--

		“oily waste” means a specific type of oilfield waste that contains oil generated primarily during oil production; “Operating Modes” means distinct phases of facility operation such as start-up, normal operation, shutdown, maintenance, and abnormal or emergency states. “person” means any human being regarded as an individual, which includes, but is not limited to, employees, managers, public officers, inspectors, visitors at a facility, and third-party contractors; “person-in-charge” means a person appointed by a contractor, permit holder or midstream operator in accordance with these Regulations to be in charge of a specified activity or operation; “PHASt” means a process hazard modelling software used to simulate fire, explosion, and toxic dispersion scenarios. “Process Flow Diagram” means a schematic representation of major process equipment and flow streams. “produced sand” means sand produced from a reservoir and separated from the formation fluids during petroleum processing; “produced water” means water that comes out of a well with the petroleum during production which may contain soluble and non-soluble oil, organic compounds, suspended solids, dissolved solids, and other material used in the production process; “production Facility” means production, separation, treating, compression, flowlines, storage, and other production handling equipment employed in the production of petroleum; “Risk Assessment” means a systematic process of identifying hazards, analysing likelihood and consequences, and evaluating controls to determine whether risks are acceptable or require mitigation. “Risk Matrix” means a tool used to rank risks based on likelihood and consequence categories. “safety distance” means the minimum mandatory separation between hazardous equipment, storage tanks, ignition sources, occupied buildings, public areas, or other risk-sensitive locations, determined through risk assessment or technical standards. It ensures adequate protection against thermal radiation, explosion overpressure, toxic dispersion, or other hazardous effects. “safety zone” means a formally declared area established by the Cabinet Secretary on advise by the Authority around a petroleum facility, wellsite, pipeline, loading terminal, or offshore installation within which access is restricted or controlled to protect people, property, and the environment from major accident hazards where entry, activities, and navigation require authorisation and compliance with specified safety measures. (c) identifies all major accident hazards and major environmental incident hazards associated with the petroleum facility or petroleum operations; (c) demonstrates that risks to workers, contractors, visitors, neighbouring communities, members of the public, property, critical national infrastructure and the environment have been reduced to a level that is as low as is reasonably practicable; and
--	--	--

		(c) describes the safety management system, organisational arrangements, safety-critical elements, performance standards, verification scheme, emergency preparedness and response arrangements, and resources by which those risks will be controlled and maintained at that level throughout the petroleum operation; “safety-critical element” means any structure, plant, system, control, procedure or human action whose purpose is to prevent, detect, control, mitigate or respond to a major accident hazard, and whose failure could cause or significantly worsen such an event. “Simultaneous Operations” refers to two or more activities occurring at the same location or adjacent areas at the same time, creating increased interaction risks. It requires coordinated control because combined operations may elevate ignition, access, congestion, or emergency response hazards. “storage depot” means a midstream facility consisting of one or more tanks for storing crude oil and natural gas; “tank vapours” means gases which emanate from a wash or storage tank containing petroleum, water or other materials; “Tribunal” means the Energy and Petroleum Tribunal established under the Energy Act (Cap. 314); “verification scheme” means a documented system of independent and competent verification activities that describes how the suitability, availability, integrity, reliability and performance of each safety-critical element will be assured and maintained, including ageing and life-extension controls, for as long as the facility or activity remains in being. “Waste treatment” means to apply any method, technique or process, such as neutralisation and stabilisation, that is designed to change the physical, chemical, and/or biological character or composition of waste or a component of waste to reduce the hazards the waste presents. “Waste characterisation” is the assessment of the physical, chemical, and toxicological characteristics (i.e. properties) of a waste, in order to determine its appropriate handling, treatment, and disposal; “Waste manifest” is a document that provides identification and tracking information on the waste being transported; “Waste storage area” means an area of a facility controlled by a contractor, permit holder or midstream operator that is used for the purpose of collecting and storing waste produced by operations; “Well Control Event” means any situation where pressure control of the well is compromised, potentially leading to influx or blowout.
PART II – APPLICATION		
Application	3.	(1) These Regulations shall apply to the environmental, health and safety requirements of upstream and midstream petroleum operations and facilities, including the design, construction, installation, operation, maintenance, modification and decommissioning of – (a) onshore and offshore upstream petroleum operations, facilities and related equipment; and

		(b) midstream petroleum operations, facilities and related equipment. (2) These Regulations shall not apply to facilities used in any downstream petroleum operations.
PART III – SAFETY REQUIREMENTS		
Division 1 – General Safety Requirements		
General duties and safety obligations	4.	(1) A contractor, permit holder, upstream or midstream operator shall take necessary measures— (a) to prudently identify and assess the risks related to its operations and facilities; (b) to minimise, as far as practicable, any risk to the safety and health of persons or any risk to public safety that may arise from operations and related activities; (c) to limit, as far as practicable, the effects of any incidents, hazards or accidents on human health and the environment; (d) to adopt technical, operational and organisational practices and solutions that reduce risks to an acceptable level; (e) to ensure that adequate and appropriate recovery measures are put in place to deal with the effects of any incidents, hazards or accidents; (f) to ensure that occupational safety and health measures in all operations are satisfactory to protect the safety and health of workers; and (g) to institute procedures that allow the continuing development of safety practices that reflect technological advancement and advances in best petroleum industry practices. (h) To adopt measures necessary for environmental protection (i) to ensure compliance with any applicable Kenyan safety and health laws, and in addition ensure that— (i) responsibility and authority during each petroleum activity is clearly defined and coordinated at all times; (ii) all workers and personnel accessing a facility or participating in a petroleum activity are sufficiently informed of all relevant safety documentation and reporting procedures; and (iii) any person acting under a contractor’s or a midstream operator’s authority in performing upstream and midstream petroleum operations, complies with the Act, these Regulations and any other applicable law or administrative direction. (2) A contractor, permit holder or midstream operator shall demonstrate to the Authority that it has taken all necessary measures to ensure safety and health of workers and all persons in the vicinity of operations, general public safety and the protection of the environment and property as specified under these Regulations, any Kenya Standard and best petroleum industry practices. (3) A contractor, permit holder, upstream or midstream operator shall ensure the timely preparation and submission of the safety case to the Authority. (4) Where the contractor, permit holder or midstream operator proposed any activity at a location that qualifies as a workplace under the Occupational Safety and Health Act (Cap. 236A) for the time being, unless that workplace

		is subject to a valid exemption, the contractor, permit holder or midstream operator may not undertake that activity until a certificate of registration for such workplace has been issued under that Act. (5) In discharging upstream and midstream operations, the contractor shall— (a) integrate community health, safety and rights considerations into all project design, construction, operation and decommissioning activities; (b) Establish and maintain a communication strategy to inform communities in advance of planned operations, consistent with the Act; (c) respect community participation rights in environmental and safety decision-making processes; and (d) implement measures to prevent and mitigate any foreseeable harm to public health, livelihoods or the environment. (6) A contractor shall ensure that the community health and safety are taken into consideration by - (a) Providing appropriate safety zones between petroleum installations and settlements, consistent with the SEVENTEENTH SCHEDULE. (b) ensuring safe management of chemicals, waste, and effluents as per the Act, these regulations and any other applicable Kenyan law; (c) preventing contamination of water, air and soil and promptly remediate affected areas; (d) providing signage, traffic controls and community safety awareness programmes along access and haul roads; (e) immediately notifying the Authority, County Government and relevant government agencies of any incident posing risk to public health or safety; (f) assisting in emergency response and providing medical and logistical support to affected persons; and (g) compensating affected persons for injury, illness or loss of livelihood as provided for under the applicable Kenyan law.
Liability of Licensees and Operators	5.	(1) A contractor, permit holder, upstream or midstream operator remains responsible for compliance with the Act and these Regulations, notwithstanding any delegation to contractors, subcontractors, or agents. (2) The contractor, permit holder, upstream or midstream operator shall ensure that all persons engaged in petroleum operations on its behalf comply with the Act, these Regulations, and any other applicable law. (3) Liability for harm to human health and safety, or the environment caused by upstream or midstream operations shall rest with the contractor, permit holder, upstream or midstream operator, except where otherwise provided under written law.
Personnel training and qualifications.	6.	(1) A contractor, permit holder, upstream or midstream operator shall ensure that all workers involved in upstream and midstream petroleum operations have the necessary experience, qualifications and/or training to execute the work in accordance with the Act, these Regulations, and any other applicable Kenyan law.

		(2) A contractor, permit holder, upstream or midstream operator shall ensure that records of worker training and competencies are maintained, kept up-to-date and readily accessible to the Authority on inspection. (3) A contractor, permit holder, upstream or midstream operator shall routinely take steps to identify and record any insufficiency in worker performance that may require additional training to redress. (4) A contractor, permit holder, upstream or a midstream operator shall ensure that workers receive the necessary and specialised training— (a) to perform their tasks safely; (b) in occupational safety and health; and (c) in responding to incidents, hazards, and accidents. (5) A contractor, permit holder, upstream or a midstream operator shall make all relevant safety and procedural documentation readily available and accessible to workers and to the Authority upon request. (6) A contractor, permit holder, upstream or a midstream operator shall ensure that all workers are informed about updates introduced into the procedures and manuals that may impact— (a) operations and maintenance; (b) training in emergency situations and simulations; (c) escape, evacuation and rescue; (d) machinery safety; (e) materials, products and equipment packaging, identification, storage and handling; (f) results of any safety analysis; (g) codes and signalling; (h) communication and reporting practices; (i) their preparedness and responses to emergencies; and (j) any other matter relevant to operations. (7) A contractor, permit holder, upstream or midstream operator shall provide training to workers upon their employment, any transfer or change of work tasks, the introduction of new work equipment or modifications to the equipment and upon introduction of new technology that applies to the worker's tasks. (8) The training shall be adapted to changes and/or new risks in the petroleum operations. (9) Where a worker is assigned duties related to the execution of safety and health obligations, a contractor, permit holder, upstream or midstream operator shall ensure that the worker is certified to perform the duties in accordance with the applicable safety and health laws in Kenya.
Worker responsibility	7.	Workers shall comply with the safety rules and procedures in force and cooperate in implementing measures put in place by a contractor, permit holder, or midstream operator to create a safe working environment, as stipulated under the applicable Kenyan Health and Safety laws.
Division 2 – Safety Case		
Facilities and operations that require a Safety Case	8.	(1) No contractor, permit holder, upstream or midstream operator shall undertake upstream or midstream petroleum operations or any other related

		activity determined by the Authority to pose major accident hazard without an approved Safety Case. (2) A Safety Case shall, at a minimum, contain the matters set out in the First Schedule. (3) Without limiting sub-regulation (1), the following facilities and activities are deemed to require a Safety Case— (a) Exploration & drilling including site preparation, access roads, and camp set-up, exploration wells drilling (wildcat wells), mud logging, wireline logging, coring, well testing (DST – Drill Stem Test), appraisal wells drilling, fluid analysis well completion and well workover operations where loss of well control, blowout or uncontrolled hydrocarbon release is credible; (b) Development activities including drilling of production wells, crude oil storage installations and tank farms, including fixed or floating storage used for crude oil or condensate, trunk crude oil pipelines, feeder pipelines, pump stations, block valve stations, and pigging stations, including tie-ins, hot taps and high-pressure reroutes; (c) Production including gathering and processing facilities handling hydrocarbons under pressure, including separation, gas compression, flaring/venting, produced water handling where hydrocarbons or H₂S are present, and early production systems, integrated waste management facilities, custody transfer, loading and offloading terminals for crude oil or associated products, including marine jetties, pipeline-to-ship manifolds, truck loading gantries, rail loading racks, and associated pump manifolds and vapour control systems; (d) Decommissioning activities including plug & abandonment of wells (cement plugs, casing removal), dismantling of surface facilities and pipelines, disposal or recycling of equipment, soil remediation & vegetation restoration activity relating to sub-regulation 3 (a) through (c); (e) any petroleum operation carried out within a declared or proposed petroleum safety zone or exclusion zone including road tanker and rail tank wagon loading, offloading, transfer and staging operations carried out within a petroleum facility, including truck loading gantries, rail loading racks, pipeline-to-truck or pipeline-to-rail manifolds, associated pumping and vapour control systems, tanker queueing or parking areas, and any other road or rail interface within a declared or proposed petroleum safety zone or exclusion zone; and (f) Any other petroleum facility or operation that the Authority, by written notice, determines presents a significant risk to health, safety, public safety or the environment.
Obligation to comply with the approved Safety Case	9.	(1) Where the Authority has approved a Safety Case— (a) the contractor, permit holder or midstream operator shall conduct all petroleum operations strictly in accordance with the conditions set out in the approved Safety Case;

		(b) the contractor, permit holder or midstream operator shall not materially depart from the approved Safety Case unless and until a revision or addendum has been submitted and approved in accordance with Regulation 12; and (c) the contractor, permit holder or midstream operator shall ensure that all workers and sub-contractors engaged in the covered activities are informed of, trained in and have access to the relevant parts of the approved Safety Case, including high-risk work controls, emergency duties and safety/exclusion zone rules. (2) Failure to comply with an approved Safety Case constitutes non-compliance with these Regulations and may result in enforcement under Regulation 14 and 15.
Verification scheme for safety-critical elements	10.	(1) The Safety Case shall include a written verification scheme for all safety-critical elements. (2) The verification scheme shall— (a) list each safety-critical element and its performance standard (functionality, reliability, availability, survivability, response time); (b) define inspection, examination, functional testing, integrity monitoring and maintenance required to ensure that each safety-critical element remains capable, at all times, of performing its intended function, including during abnormal, emergency, suspended and decommissioning states; (c) require verification by competent and independent persons or bodies; (d) require prompt reporting of any reservations, impairments or anomalies identified by such persons or bodies, and define how such findings will be tracked, prioritised, addressed and closed; (e) identify and manage ageing, corrosion, erosion, fatigue, vibration, subsidence, obsolescence (including software/ICS obsolescence) and life extension issues, including an Obsolescence Management Plan, an Obsolescence Risk Register and, where relevant, a Life Extension Plan for ageing facilities; and (f) remain in force throughout design, construction, operation, suspension, decommissioning, dismantling and post-closure stewardship while the facility, well, pipeline, terminal, loading gantry, rail rack or installation remains in being. (3) Verification records, findings and close-out actions shall be retained and provided to the Authority upon request without unreasonable delay.
Submission and approval of a Safety Case	11.	(1) The contractor, permit holder or midstream operator shall, upon payment of the prescribed fee in FOURTEENTH SCHEDULE, submit the Safety Case, or any revision or addendum of the Safety Case, to the Authority not less than ninety (90) days before—

		(a) commencing the petroleum activity or operation covered by that Safety Case as prescribed in Regulation 8; (b) undertaking any modification, tie-in, debottlenecking, workover, infill drilling, throughput increase, life-extension step, suspension, cold-stacking, decommissioning, dismantling or abandonment step that materially changes the risk profile; or (c) occupying or operating within a proposed or declared safety zone or exclusion zone. (2) The Authority shall, on receipt of the Safety Case under sub-regulation (1), consider within sixty (60) days and notify the contractor, permit holder or midstream operator of the decision of the Authority. (3) The Authority may, in considering the Safety Case submitted under sub-regulation (1), consult with relevant government agencies, and (a) may require specified corrective actions or additional control measures to ensure compliance with the Act, these Regulations, any applicable Kenyan laws and best petroleum industry standards; (b) approve the Safety Case, with conditions; or (c) reject the Safety Case, giving written reasons; (4) The contractor, permit holder or midstream operator shall not commence or continue the petroleum operation, modification, suspension, decommissioning, dismantling or safety zone occupation unless and until the Authority has issued written approval for the Safety Case for that specific facility and operation. (5) An approved Safety Case is valid only for the facility, activity, operation and conditions for which approval was granted. (6) Upon rejection of the safety case, the contractor, permit holder or midstream operator may resubmit the revised safety case to the Authority for review and consideration.
Review, revision and resubmission	12.	(1) The contractor, permit holder, upstream or midstream operator shall review the Safety Case— (a) whenever required by the Authority and in any case not exceeding five (5) years; or (b) whenever any of the following occurs— i. a significant change to the facility design, operating envelope, throughput, layout, integrity state, logistics support or emergency response capability; ii. introduction of a petroleum activity or operation including a new drilling, workover campaign, new tie-in, throughput increase, late-life, life-extension work, suspension, cold-stacking, decommissioning, dismantling or abandonment step that is not adequately covered in the approved Safety Case; iii. identification of a new major accident hazard, or a significant increase in an existing hazard, through incident investigation, audit, inspection, verification findings, integrity data or emerging threat information, including pipeline integrity

		threats, tank structural degradation, rail loading hazards, road tanker staging hazards; iv. cumulative smaller modifications which, taken together, materially alter the overall risk profile; or v. a material change in applicable law, technical standards, environmental sensitivity or community interface requirements. (2) Where a review under sub-regulation (1) identifies a material change, the contractor, permit holder or midstream operator shall submit a revised Safety Case or Safety Case addendum to the Authority under Regulation 12 and shall not implement the change until written acceptance is issued. (3) The Authority may at any time direct the contractor, permit holder or midstream operator to submit a revised Safety Case or additional information where the Authority considers that— (a) risks are no longer controlled to ALARP; (b) safety-critical elements, integrity barriers or emergency (c) arrangements have deteriorated; (d) repeated serious incidents, high-potential near misses or verification findings indicate systemic failure; (e) contractor or interface management, including (f) pipeline/terminal/rail/road interfaces) has broken down; or (g) new legal, technical, environmental, security or community-protection requirements apply.
Safety case retention and accessibility	13.	(1) The contractor, permit holder, upstream or midstream operator shall maintain a copy of the approved Safety Case, including any conditions of approval imposed by the Authority— (a) at the facility including the installation, well site, pipeline control room, pump station, pigging station, tank farm, storage installation, loading, offloading terminal, rail loading rack, truck gantry or other relevant site; (b) at the onshore operating base or logistics base supporting that facility or activity; and (c) at the principal office of the contractor, permit holder, upstream or midstream operator in Kenya. (2) The contractor, permit holder, upstream or midstream operator shall ensure that— (a) supervisors, safety representatives and affected workers and contractors have access to, and are trained on, the parts of the Safety Case relevant to their duties; (b) summaries of major accident hazards, critical controls, emergency actions, permit-to-work requirements and safety/exclusion zone boundaries are displayed prominently in appropriate work areas, control rooms, muster points, loading gantries and terminals; (c) copies of the approved Safety Case, any revisions, the verification scheme, any Obsolescence Management Plan, any Life Extension Plan, and records of audits, inspections, verification findings and

		close-out actions are provided to the Authority upon request without unreasonable delay; and (d) on request by the Authority, the contractor, permit holder or midstream operator provides a public-facing summary of environmental and community protection measures suitable for communication to affected communities and relevant county governments, consistent with national security and legitimate commercial confidentiality.
Enforcement of the safety case	14.	(1) If the Authority determines that— (a) a Safety Case or revision does not adequately demonstrate control of major accident hazards to ALARP; (b) the contractor, permit holder or midstream operator is not operating in conformity with the approved Safety Case; (c) a safety-critical element, integrity barrier or emergency preparedness function has deteriorated to the point of posing imminent risk to life, health, public safety, property or the environment; (d) the emergency preparedness and response arrangements described in the Safety Case are not functional, resourced, drills-tested or available; or access controls to a safety zone or exclusion zone are inadequate to protect life, health, public safety or the environment, the Authority may, by written notice— i. impose additional conditions on the approved Safety Case; ii. require corrective action within a specified period; iii. order reduction, suspension, evacuation or shutdown of operations in whole or in part; iv. prohibit the commencement of any new petroleum operation; or v. order the establishment, enlargement or enforcement of a safety zone or exclusion zone and restrict access accordingly. (2) A contractor, permit holder or midstream operator who fails to comply with a notice under sub-regulation (1) commits an offence and is liable to the penalties prescribed under Section 124 of the Act, these regulations without prejudice to any civil, environmental, occupational safety or criminal liability arising under any other written law. (3) Where an order made under sub-regulation (1) affects public safety, navigation, marine traffic, rail safety, road tanker safety, aviation, spill risk, county emergency response or environmental protection, the Authority may, where applicable, notify the relevant competent authorities, including National Environment Management Authority, the Directorate of Occupational Safety and Health Services, the relevant county government(s), the Kenya Maritime Authority, the Kenya Civil Aviation Authority, the National Transport and Safety Authority and national emergency or security organs.
Operating without an approved Safety Case	15.	(1) A contractor, permit holder or midstream operator who commences operations without an approved Safety Case commits an offence and is liable to the penalties prescribed under Section 124 of the Act, these regulations,

		without prejudice to any civil, environmental, occupational safety or criminal liability arising under any other written law. (2) Continued failure after conviction shall constitute a continuing offence, and the offender shall be liable to a further fine not exceeding one hundred thousand Kenya Shillings for each day the offence continues.
Division 3 – Safety of Petroleum Facilities		
Sub-division 1 – General Requirements		
Facility management.	16.	(1) A contractor, permit holder or a midstream operator shall ensure there is a person in charge with responsibility for safety and health matters at each manned facility during operations. (2) Where the safety case for a facility so requires, a contractor, permit holder or a midstream operator shall ensure a person-in-charge is assigned to be responsible for the safety and supervision of an activity. (3) A person in charge of an activity shall supervise the activity to ensure that – (a) the workers perform the activity in a safe manner in line with these regulations, best petroleum industry standards and any other relevant Kenyan law; (b) all tools and equipment are used in a safe manner; (c) all tools and equipment are maintained in a safe working condition; (d) the designated storage facility or area for tools and equipment is maintained in a safe manner; and (e) all tools and equipment are stored in a safe manner while not in use. (4) A contractor, permit holder or a midstream operator is responsible to ensure that the person-in-charge is suitably qualified and instructed to discharge the supervisory tasks under this regulation.
Manual of instructions.	17.	(1) A contractor, permit holder or midstream operator shall prepare a manual of instructions for the safety of the facility's operations and bring it to the attention of every worker or any other person participating in upstream and midstream. (2) A worker or any other person participating in upstream and midstream shall comply with the requirements of the manual of instructions relevant to his or her duties. (3) A contractor, permit holder or midstream operator shall revise and update the manual of instructions for the safety of a facility's operations as need arises and ensure that such revisions are brought to the attention of workers and other persons participating in upstream and midstream in the facility.
General safety and health in facility design and construction.	18.	(1) A contractor, permit holder or a midstream operator shall ensure that the design, engineering and construction of any facility is conducted in a manner to ensure the safety and wellbeing of persons present at or near the facility. (2) A contractor, permit holder or a midstream operator shall ensure that the design, engineering and construction of any facility is undertaken in accordance with Kenya Standards. (3) A contractor, permit holder or a midstream operator shall ensure that the choice and location of a facility and its components is based on best petroleum industry practices and entails a risk analysis and area classification.

Design considerations.	19.	A contractor, permit holder or a midstream operator shall ensure that the design of the facilities considers, at a minimum, the following considerations— (a) the local environment of the facility site; (b) the requirements of Kenya's environmental laws and regulations including the requirements contained in these Regulations; (c) the ability of the facility to withstand abnormal loads; (d) the suitability of equipment and materials for their intended purpose; (e) systems for the relief of excessive pressure; (f) classification of areas at risk of explosion, fire or collapse; (g) the layout and distribution of equipment at the facility; (h) protecting workers from the risks arising from the use of rotating machinery and other hazardous machinery; (i) reducing the use of chemicals at the facility and minimizing the risks from any such use; (j) the characteristics of confined spaces at the facility with respect to maintaining a safe atmosphere and eliminating the risk of ignition; (k) the ventilation of spaces containing petroleum and, if necessary, equipping them with pressure relief valves and/or explosion protection panels; (l) the use of systems to detect abnormal conditions and reduce the risk of release of hazardous substances and to contain any release; (m) the suitability of the use of automatically operating safety equipment and installations to reduce the incidence and consequences of fire, explosion, escape of gas and other hazards; (n) safe and easy access for inspection, testing and maintenance purposes; and (o) any foreseeable changes in future operational conditions.
Design functions.	20.	A contractor, permit holder or a midstream operator shall ensure that the facilities are planned and designed to ensure that— (a) no single isolated defect or fault endangers persons, the environment or property; (b) as far as reasonably practicable, there is redundancy in the operating system and safety systems; (c) safety critical elements are identified to ensure safe control of the processes at the facility; (d) the potential for human error in operations is reduced as far as possible; and (e) the safety systems and mechanisms used in the facility are designed to control and record the relevant conditions for their integrity.
Testing.	21.	(1) A contractor, permit holder or a midstream operator shall ensure that facilities and equipment are sufficiently tested prior to operation in order to establish their, suitability, integrity and durability. (2) A contractor, permit holder or a midstream operator shall develop a programme of regular testing of facilities and equipment to ensure that the

		critical components of each system continue to work safely. The regular testing programme shall include instructions on— (a) the required frequency of tests; (b) the required methodology to perform the manner of performance of the tests; and (c) the corrective measures that may be applied, and any other relevant recommendations. (3) A contractor, permit holder or a midstream operator shall ensure that testing of facility and equipment shall be performed by a person approved by the Authority.
Maintenance and repair	22.	(1) A contractor, permit holder or midstream operator shall undertake regular inspection, maintenance and repair of all equipment and facilities. (2) A contractor, permit holder or midstream operator shall ensure that all tools, equipment, machinery and plant used in the course of upstream and midstream are— (a) maintained in a good state of repair; (b) safely constructed; (c) installed safely, where appropriate; and (d) regularly inspected and repaired where necessary.
New technology or new methods.	23.	(1) Where a contractor, permit holder or a midstream operator proposes to undertake an activity that entails the use of new technology or new methods, a contractor, permit holder or a midstream operator shall establish a criteria for the development, testing, and use of the technologies, taking into account the requirements for health, safety and environment in accordance with any Kenya Standards and best petroleum industry practices. (2) A contractor, permit holder or a midstream operator shall inform the Authority prior to the introduction of new technology or new method in upstream and midstream.
Sub-division 2 – Facility Design and Construction		
Standards.	24.	(1) A contractor, permit holder or a midstream operator shall ensure that facilities, systems and equipment are designed in a robust manner in accordance with any Kenya Standards and best petroleum industry practices to ensure that— (a) the facilities, systems and equipment can be operated, tested and maintained without endangering human life, health, the environment and material assets; and (b) the facilities, systems and equipment are suitable for use and able to withstand the anticipated loads they will encounter during operation. (2) A contractor, permit holder or midstream operator shall ensure that components of facilities and related systems and equipment shall be clearly marked and labelled to facilitate safe operation and prudent maintenance.
Structural considerations.	25.	(1) A contractor, permit holder or a midstream operator shall ensure the integrity of support structures and materials in the facility. (2) Design requirements relating to support structures shall include functional specifications to guarantee—

		(a) loads and environmental conditions that may be incurred by fabrication, installation, maintenance and operation; (b) performance in normal conditions, with particular regard to damage, movements, fixings, vibration and fatigue; (c) resistance to possible actions and strain that may give rise to faults, large rigid movements or stresses comparable to faults; and (d) stability of any floating structures in situations of drifting, floundering or sinking. (3) A contractor, permit holder or a midstream operator shall determine the characteristics, functions and performance standards of all structural supports and their components and materials. Structural supports shall – (a) have optimum ductile properties and low sensitivity to local damage; (b) be equipped with instruments to measure environmental loads; (c) provide single stress trajectories with small concentrations of stress; (d) be resistant to corrosion and other damage; and (e) permit the simple check of conditions for maintenance and repair purposes. (4) A contractor, permit holder or a midstream operator shall ensure that the components, couplings and connecting parts are subject to safety testing during the fabrication and production process.
Consideration of materials during design.	26.	(1) When selecting materials for a facility during the design phase, a contractor, permit holder or a midstream operator shall – (a) ensure that materials meet all the Kenya Standards and best petroleum industry practices regarding strength, ductility, toughness, corrosion, durability and consider the material's compatibility with process fluids and operational conditions; (b) ensure that materials adequately address the need to protection against corrosion, erosion and other forms of decay; (c) consider the fire resistance attributes of the materials; and (d) ensure that, where new materials are introduced, the materials are verified by means of necessary analyses, calculations and tests so that the materials meet appropriate stipulated safety criteria.
Pipeline and storage facility design.	27.	(1) An upstream and midstream operator shall ensure that the detailed layout plans and specifications for pipelines and storage depots required shall be compatible with best petroleum industry practices and consider the following factors – (a) the location of any ancillary buildings and other installations to allow for safe evacuation of personnel in case of emergency; (b) the safe performance of internal inspection and maintenance; (c) the use of control or monitoring equipment, including flow detectors and pressure monitors, to protect or to secure the safe operation of the pipeline or storage tank; (d) the use of emergency shut-off valves to minimise loss of containment of the pipeline or storage tank inventory, capable of manual or automatic operation;

		(e) the use of isolation mechanisms such as interlocks that may remotely trigger a shut-off valve based on events such as abnormal pressure conditions in the pipeline or storage tank; (f) the use of devices to prevent safe operating limits being exceeded, such as pressure relief valves or block valves to limit the inventory released, which shall be spaced in accordance with the safety evaluations and allowing for maintenance access; and (g) the location of emergency shut-down valves and related mechanisms such that they, so far as reasonably practicable, shall remain operational in the event of fire, explosion or impact.
Sub-division 3 – Safety Features of Facilities		
Control room.	28.	(1) A contractor, permit holder or a midstream operator shall ensure that the location, design and construction of a facility's control room is suitable to withstand possible major accidents. (2) The control room shall be secured with access control systems and cameras to prevent unauthorized access. (3) The layout of the control room and arrangement of panels shall ensure effective ergonomic operation of a facility in both normal circumstances and emergency situations. (4) The design of the control room shall consider the possibility of emergencies or disasters and provide emergency response procedures; (5) A contractor, permit holder or midstream operator shall ensure the availability of qualified personnel to man the control room.
Emergency shutdown system.	29.	(1) A contractor, permit holder or a midstream operator shall ensure that facilities are installed with an emergency shutdown system which shall be designed to initiate upon detection of defined, potentially hazardous conditions. (2) A contractor, permit holder or a midstream operator shall ensure that facilities are installed with an emergency shutdown system which shall – (a) be able to prevent or mitigate the development of an incident, hazard or accident and limit the consequences of the incident, hazard or accident; (b) be designed to withstand the loads to which they may be subjected; (c) be able to perform the intended functions independently of other systems and have a simple and clear command structure; (d) be designed to maintain safe conditions in case of a fault that may prevent the system from functioning; (e) be capable of being activated manually from the control room or from trigger stations that are located in strategic locations in the facility; and (f) be able to bring the facility to a safe condition in the event of a fault. (3) A contractor, permit holder or a midstream operator shall ensure that – (g) emergency shutdown valves are installed with the capacity to stop the flow of petroleum and chemicals to and from a facility; (h) the emergency shutdown valves are able to isolate the fire areas of a facility; (i) the system can be tested safely and without interrupting operations;

		(j) all accessible emergency shutdown valves are equipped with a position indicator and the status can automatically be transferred to the control room; and (k) the resetting of emergency shutdown valves is performed in a safe and controlled manner.
Gas release system.	30.	(1) A contractor, permit holder or a midstream operator shall ensure that a facility equipped with or attached to processing facilities has a gas release system to prevent escalation of hazards, incidents and accidents by quickly reducing the pressure in the equipment. (2) A contractor, permit holder or a midstream operator shall ensure that the gas release system is designed so that— (a) the release of gas does not harm workers, equipment or the environment; (b) depressurization may be triggered manually from the control room; (c) any liquid separators installed in the system are secured against overfilling and the status of components in the system is monitored; and (3) maintenance and functional testing can be carried out conveniently without interrupting operations.
Depressurisation and flare system.	31.	(1) A contractor, permit holder or a midstream operator shall ensure that facilities are installed with an automatic depressurisation and flare system, as applicable, that— (a) is designed to prevent escalation of incidents, hazards or accidents by reducing the pressure in the equipment; (b) is designed to ensure that any release of gas does not harm workers or damage equipment; and (c) is capable of being activated manually from the control room, where applicable. (2) A contractor, permit holder or a midstream operator shall ensure that a liquid separator installed in a flare system shall be secured against overfilling.
Drainage systems.	32.	(1) A contractor, permit holder or a midstream operator shall ensure that a facility is— (a) equipped with open drainage systems that can collect and divert petroleum, chemicals and other liquids so that any risk of fire, of harm to workers or of pollution to the environment is minimised; and (b) designed to ensure that any discharge of petroleum, chemicals or other liquids results in the least possible pollution of the environment.
Fire.	33.	(1) A contractor, permit holder or midstream operator shall ensure that the design of a facility is consistent with any Kenya Standards and best petroleum industry practices for the prevention and control of fire and explosion hazards. (2) A contractor, permit holder or midstream operator shall ensure that the selection of fire safety measures in the facility design includes consideration of the following— (c) segregation of process, storage, utility and safe areas;

		(d) safety distances derived from specific safety analyses for the facility and any Kenya Standards and best petroleum industry practices for fire safety; (e) early release detection including pressure monitoring of gas, liquid conveyance systems, smoke and heat detection for fires; (f) evaluation of the risk of vapour accumulation in storage tanks and implementation of prevention and control techniques; (g) layout of pipes with respect to potential sources of ignition to avoid spills over high temperature piping, equipment or rotating machines; (h) passive fire protection measures; (i) limiting the areas potentially likely to be affected by accidental releases by — i. defining fire zones equipped with a drainage system to collect and convey accidental releases of flammable liquids to a safe containment area; ii. including secondary containment of storage tanks, where applicable; iii. installing fire and blast partition walls in areas where appropriate separation distances cannot be achieved; iv. designing the oily sewage system to avoid propagation of fire; and (j) any other measures the contractor, permit holder or midstream operator may deem relevant.
Fire and gas detection system.	34.	(1) A contractor, permit holder or a midstream operator shall ensure that a facility has an automatic fire and gas detection system that ensures quick and reliable detection of developing fires and gas leaks which functions independently of other systems. (2) A contractor, permit holder or a midstream operator shall ensure that the fire or gas detection system can trigger automatic actions to limit the consequences of the fire or gas leak.
Fire protection.	35.	(1) Fire protection and prevention practices within a facility or applied during upstream and midstream petroleum operations shall be governed by the Act, these Regulations, any Kenya Standards, best petroleum industry practices and any other applicable Kenyan laws. (2) A contractor, permit holder or a midstream operator shall put in place, at a minimum, measures to improve fire protection in a facility which shall include; (a) assessment of initial fire safety preparedness; (b) provision of equipment for fire emergency on site; (c) installation of an automatic fire outbreak alert systems; (d) installation of automatic and manual fire suppression systems; (e) inspection or testing of the equipment by an independent competent body approved by the Authority; (f) measurement of dangerous gas with detection equipment; and (g) training workers to use fire protection equipment.

Passive fire protection.	36.	(1) A contractor, permit holder or a midstream operator shall ensure that where passive fire protection measures are used at a facility, such measures shall be designed to provide the relevant structures and equipment with sufficient fire resistance with respect to load capacity, integrity and isolation properties during a design fire load. (2) A contractor, permit holder or midstream operator shall ensure that any living quarters in a facility are designed to ensure that the functions they are designed for can be maintained during a dimensioning fire. (3) A contractor, permit holder or midstream operator shall ensure that the choice of materials and interior design of any living quarters is considered with respect to the fire risk and is able to prevent fire from spreading.
Fire divisions.	37.	(1) A contractor, permit holder or a midstream operator shall ensure that spaces with key functions and equipment or that pose a high fire risk, are separated from the surroundings by means of fire divisions. (2) Fire divisions shall be designed to withstand the thermal loads that may occur in a dimensioning fire, to prevent fire from spreading to the adjacent areas or cause equipment in those areas to become inoperative for a minimum period of one hour. (3) The strength of the fire divisions shall not be reduced by any intersection with ventilation ducts, piping, cables, beams, windows and doors or other penetrations. (4) Doors in fire divisions shall be capable of closing automatically.
Smoke control and ventilation.	38.	A contractor, permit holder or midstream operator shall ensure a facility's ventilation system is designed to effectively control smoke from a dimensioning fire and to ensure that both evacuation and firefighting can take place in a cautious and effective manner.
Fire alarm and evacuation.	39.	(1) A contractor, permit holder or a midstream operator shall ensure that any living quarters and work areas in a facility — (a) are designed and protected to prevent penetration of smoke from a fire; and (b) are equipped with a reliable system capable of giving warning to every person on the facility of a detected fire event and the need to evacuate the facility. (2) The fire alarm and evacuation system referred to in sub-regulation (1) shall be capable of — (a) manual activation from the control room and any other relevant positions; and (b) activating an alarm in the control room. (3) Every operational facility shall have an emergency assembly point in an open space free from any potential risk. (4) A contractor, permit holder or midstream operator shall ensure that an additional emergency assembly point(s) exist to avoid overcrowding in case of an emergency and that clear guidance is provided to this effect.
Emergency exits.	40.	(1) Each floor of a building in a facility shall have at least one escape exit which shall—

		(a) be clearly marked; (b) always be clear for use; (c) have open doorways or swinging doors to provide the maximum possibility of escape; (d) provide an unobstructed passage to the fire assembly point; and (e) be located to provide reasonably safe alternative means of escape. (2) The doors of an escape exit shall — (a) be readily opened from the inside without a key and shall swing outward if located in an exterior wall; (b) not be locked while the room is occupied; and (c) be accessible by fixed ladder, stairway, ramp, walkway, slide, slide pole or any other means consistent with any Kenya Standards and best petroleum industry practices. (3) Any gated fence which is close to a light oil or gas processing unit shall have gates opening outward. (4) The gates of an enclosure within a facility shall be unlocked whenever the area within the enclosure is occupied. (5) A contractor, permit holder or a midstream operator shall use any other means to ensure the safety of the workers and the facility or upstream and midstream.
Fire protection installations and equipment.	41.	(1) A contractor, permit holder or a midstream operator shall, during the design phase incorporate a fixed fire-fighting system in the facility design. (2) A contractor, permit holder or midstream operator shall ensure that a facility is equipped with sufficient fire-fighting equipment to combat near-fires and prevent escalation in case of fire efficiently. (3) A contractor, permit holder or midstream operator shall provide firefighter equipment to enable safe and effective firefighting to be carried out efficiently and ensure that the equipment is kept on the installation and stored in a cautious and suitable manner, ready for immediate use.
Fixed fire-fighting system.	42.	(1) A contractor, permit holder or midstream operator shall ensure that a fixed fire-fighting system — (a) is installed in explosion-hazard areas and in areas with a significant risk of fire; (b) covers or provides for equipment containing significant amounts of petroleum and is designed to ensure that firefighting can be carried out quickly and efficiently at all times; and (c) is capable of automatic activation by a signal from the fire detection system and in the event of gas detection, the system is automatically activated where this can result in lower explosion pressure. (2) In areas where gas is used as a fire extinguishing medium, fixed fire-fighting systems shall enable an automatic announcement to alert persons present that a release of gas has occurred. (3) The manual activation of the fire-fighting systems shall be capable of activating the general alarm of the facility.

		(4) Fire-fighting equipment shall be clearly marked in accordance with Kenya Standards and best petroleum industry practices. (5) The type, capacity and location of fire-fighting equipment shall be determined with reference to the dimensioning fire to ensure that firefighting can be carried out in a safe and effective manner. (6) The fire-fighting equipment used in a facility shall meet the Kenya Standards and best petroleum industry practices. (7) A contractor, permit holder or a midstream operator shall ensure that fire-fighting equipment in a facility is able to be tested and used during normal operational conditions.
Fire pump systems.	43.	(1) A contractor, permit holder or a midstream operator shall ensure that any fire pump systems incorporated into the facility are designed with regard to capacity, efficiency, reliability, location and protection so as to enable effective fire-fighting of dimensioning fires in accordance with the Kenya Standards and best petroleum industry practices. (2) A contractor, permit holder or midstream operator shall ensure that— (a) fire pumps can start automatically when there is a pressure drop in the fire main, and when a signal is given from the fire and gas detection system; (b) fire pumps can start manually from the control room and at the prime mover; and (c) the control room can monitor and detect the operational status of the fire pump systems. (3) A contractor, permit holder or a midstream operator shall ensure that every facility always has sufficient water supply capacity to combat and extinguish fires.
Fire response	44.	(1) A contractor, permit holder or a midstream operator shall ensure that workers are trained in fire prevention and response procedures so that workers are prepared to manage operational risks and handle incidents and emergencies in an effective manner. (2) A contractor, permit holder or a midstream operator shall ensure that fire response drills are conducted on a frequent basis to enable workers to be prepared to manage operational risks and handle incidents and emergencies in an effective manner. (3) A contractor, permit holder or a midstream operator shall ensure that— (a) fire response drills are conducted under the control of the person-in-charge of the facility; and (b) fire response drills are conducted at random times.
Workstation design.	45.	A contractor, permit holder or a midstream operator shall ensure that— (a) all work areas and related equipment are designed and positioned in a manner that reduces the risk of harm, injury or illness to workers through manual handling, work position, repetitive movements or work intensity; and (b) regular ergonomic risk assessments are conducted wherever there is a change in the working conditions of processes.

Noise and Vibrations.	46.	A contractor, permit holder or a midstream operator shall ensure that the design of a facility sufficiently reduces the risk of injury to workers due to exposure to noise or vibrations and that workers onsite wear hearing protection devices while working in areas with noise and vibration.
Ventilation.	47.	A contractor, permit holder or a midstream operator shall ensure that the design of a facility— (a) ensures adequate ventilation— (i) so that hazardous and combustible gases do not penetrate closed areas which are classified as non-hazardous or ordinary locations; and (ii) so that smoke from a fire may be controlled. (b) enables control of the atmosphere of individual rooms regarding air needs, circulation, humidity and temperature; and (c) ensures adequate ventilation for both indoor and outdoor areas to provide acceptable air quality free of hazardous pollution to in compliance with any applicable Kenyan air quality standards.
Radiation.	48.	(1) A contractor, permit holder or midstream operator shall ensure that a facility is designed to minimise exposure of workers to radiation and to ensure that primary technical solutions which minimise the use of radioactive substances are applied. (2) A contractor, permit holder or midstream operator shall ensure that appropriate warning signs are present where radioactive substances are used, transported, handled, stored and disposed of. (3) A contractor, permit holder or midstream operator shall ensure that where radioactive substances are used, safe transportation, handling, storage and disposal practices are observed in accordance with the Safety Data Sheet from the manufacturer. (4) A contractor, permit holder or midstream operator shall adhere to the Nuclear Regulatory Act, 2019 and all other applicable Kenyan laws in the management of radiation in upstream and midstream and facilities.
Division 4 – Equipment Safety		
Equipment and machinery.	49.	(1) A contractor, permit holder or midstream operator shall ensure that all tools, equipment and machinery used in upstream and midstream petroleum operations are— (a) designed, constructed, tested, installed, inspected and maintained safely in accordance with the Kenya Standards and best petroleum industry practices; (b) situated and positioned in the facility safely and appropriately in relation to their intended use and other proximate activities; (c) of sufficient size and strength to withstand imposed stresses and to safely perform the functions for which they are to be used; and (d) operated only by a suitably qualified, trained or competent person. (2) A contractor, permit holder or a midstream operator shall ensure that— (a) machinery, equipment and their components are in a safe condition during operation, repair, maintenance, testing and restart;

		(b) all exposed and moving parts of machinery are enclosed, screened or railed off to prevent any worker or any other person from encountering them; (c) where power-driven machinery is used, each machine has a stopping device located within easy reach of the worker operating the machinery; (d) every machine which is not individually motor driven is equipped with a clutch or other adequate means of stopping the machine; and (e) starting devices are arranged to prevent an incident, hazard or accident. (3) A contractor, permit holder or a midstream operator shall ensure that— (a) any scaffolding, stage, walkway, working platform, stairway and ladder, whether temporary or permanent, are constructed and maintained in safe condition; and (b) all hand tools are kept in a good state of repair.
Recording, monitoring instruments.	50.	(1) Where appropriate, equipment and aspects of facilities shall be fitted with recording and monitoring instruments that allow a contractor, permit holder or midstream operator to track the performance of the equipment and the need for maintenance or replacement. (2) A contractor, permit holder or midstream operator shall ensure that the monitoring instruments are calibrated by an independent competent body approved by the Authority. (3) A contractor, permit holder or midstream operator shall provide a valid calibration certificate for monitoring instruments upon request by the Authority.
Safety systems.	51.	(1) A contractor, permit holder or a midstream operator shall ensure that electrical, instrumentation and telecommunications systems are designed and installed in such a way to minimise risks of fire or explosion, to prevent accidents involving personnel, support emergency functions and to maintain regular production. (2) A contractor, permit holder or a midstream operator shall ensure that instruments for checking and recording safety data are connected to an emergency energy source. (3) A contractor, permit holder or a midstream operator shall retain information on the design and installation characteristics of the safety system at the facility including at least the following— (a) a flow chart of any processing system which shows the maximum operating pressure, operating temperature, dimension, capacity and working design pressure of the separators, torch scrapers, treatment devices, storage tanks, compressors, pipeline pumps, measuring devices and other tanks and hydrocarbon handling installations; (b) information on the electrical system, including the classification of hazard areas, main equipment, emergency shutdown, fire and gas detection devices, and alarm systems; and (c) schematics of any subsea control system, safety devices, umbilical's, and electric or hydraulic energy production units.
Equipment identification.	52.	(1) A contractor, permit holder or a midstream operator shall ensure that each stationary tank or vessel containing flammable, corrosive or poisonous substances is identified by a unique assigned name or alphanumeric code.

		(2) A contractor, permit holder or a midstream operator shall ensure that piping within the facility containing flammable, corrosive or poisonous liquids or gases are adequately identified and labelled indicating their contents and purpose. (3) Equipment identifications in the facility shall be maintained to be legible in accordance with Kenya Standards and best petroleum industry practices.
Fire-fighting equipment and systems	53.	(1) A contractor, permit holder or midstream operator shall ensure that a facility is equipped with sufficient fire-fighting equipment to efficiently combat fire hazards and prevent escalation in case of fire. (2) A contractor shall ensure that— (a) firefighting equipment enables safe and effective firefighting to be carried out efficiently and ensures that the equipment is kept on the installation and stored in a cautious and suitable manner, ready for immediate use. (b) every worker in a facility area receives instruction in the use of the fire-fighting equipment; (c) Fire-fighting equipment is capable of use in a safe and straightforward manner; (d) water outlets are located to enable water from two well-separated outlets to reach any fire or near fire on the facility; and (e) all fire-fighting equipment is inspected and tested at appropriate intervals by a qualified person and that a signed logbook is kept recording the last date and results of inspection.
Electrical installations.	54.	(1) A contractor, permit holder or midstream operator shall ensure that all electrical installations are designed with safeguards and other necessary protection that prevent abnormal conditions or faults that might result in danger to workers and the facility in accordance with any Kenya Standards and best petroleum industry practices. (2) A contractor, permit holder or a midstream operator shall implement the necessary measures to prevent injury to persons and minimise hazards, incidents and accidents during work near live installations, in or near earthed and short-circuited installations, and during operation of low and high voltage installations. (3) Electrical installations shall be equipped with a lightning protection system and be designed with adequate protection against— (a) electrical shock during normal use and in the event of faults; (b) thermal effects; (c) over current; (d) fault currents; (e) over voltage; (f) under voltage; (g) variations in voltage and frequency; (h) power supply failure; (i) ignition of explosive gas atmosphere, electromagnetic disturbances; and (j) health hazard as a result of electromagnetic fields.

		(4) Electrical installations shall have an earthing system installed to prevent static electricity in connection with explosive atmospheres. (5) A contractor, permit holder or midstream operator shall designate a competent person or a worker responsible for the electrical installations.
Safety procedures in electrical installations.	55.	A contractor, permit holder or midstream operator shall ensure – (a) that all testing or work performed on electrical equipment is performed by a certified person or worker; and (b) where a worker is at risk of electrical shock during the performance of testing or work, that the worker – (i) has been trained in the use of the insulated protection equipment and tools; and (ii) uses appropriate insulated protection equipment and tools to prevent injury.
Lifting appliances and operations.	56.	(1) A contractor, permit holder or midstream operator shall ensure that lifting appliances and operations comply with the requirements of the relevant Kenyan law, Kenya Standards and best petroleum industry practices. (2) A contractor, permit holder or midstream operator shall ensure that the standards selected for the operation and maintenance of lifting appliances adequately consider operational conditions and the likely range of climatic conditions. (3) A contractor, permit holder or midstream operator shall designate a person responsible to ensure that any lifting operations are carried out using lifting appliances specially designed for that purpose and certified by an inspector. (4) A contractor, permit holder or midstream operator shall ensure that any equipment for lifting workers is designed to ensure safety for all the workers carrying out activities above normal work height. (5) A contractor, permit holder or midstream operator shall establish procedures to ensure that lifting appliances and equipment are inspected – (a) prior to entry into operation; (b) following any repair or modification for the purposes of recertification; and (c) at regular intervals during the period the lifting appliances and equipment are in use. (6) During all lifting operations, a contractor, permit holder or a midstream operator shall implement communication procedures among all workers involved.
Mobile equipment.	57.	(1) A contractor, permit holder or a midstream operator shall ensure that – (a) all powered mobile equipment shall be maintained in good functional order, and shall be operated in a manner that prevents undue danger to human life or harm to the environment; (b) where mobile equipment may be operated during hours of darkness, adequate light shall be provided and used; (c) where mobile equipment may be used in locations or under conditions where there is a danger of falling objects, an overhead guard with shelter shall be provided to protect the occupants from over-head hazards and adverse weather conditions; (d) any cab or similar means of enclosure on mobile equipment has adequate means of ventilation;

		(e) a guard shall be installed to protect a driver of equipment where mobile equipment uses hosting or hauling ropes; (f) mobile equipment shall be only operated by a competent and qualified driver; (g) a worker designated by a contractor, permit holder or a midstream operator to drive the mobile equipment shall operate the equipment in a safe manner; and (h) a designated signal-man shall be used to ensure safe operation where a driver's vision may be obstructed. (2) A contractor, permit holder or a midstream operator shall ensure that all powered mobile equipment are designed, constructed, tested, inspected and maintained in accordance with the Kenya Standards.
Pressure vessels.	58.	A contractor, permit holder or a midstream operator shall ensure that boilers and unfired pressure vessel used in connection with upstream and midstream are; (a) designed, constructed, installed and maintained in accordance with any applicable Kenyan laws, Kenya Standards and best petroleum industry practices. (b) inspected and tested by a independent competent body approved by the Authority before their initial use and subsequently, on a regular basis, in accordance with any applicable Kenyan laws, Kenya Standards and best petroleum industry practices.
Rotating machinery.	59.	Any rotating machinery and the components thereof shall be designed and installed in a manner that minimizes any risk to people, property and the environment.
Valves and actuators.	60.	Machinery and plant that uses valves which pose significant risks to safety shall be tested in accordance with the Kenya Standards and best petroleum industry practices.
Division 5 – Operational Safety		
Sub-Division 1 – General Requirements		
Operational permits.	61.	(1) Where a contractor, permit holder or a midstream operator may apply for any permit from the Authority under any regulations in respect of any operation or activity the Authority shall consider any implicated environmental, safety or health concerns. (2) The Authority may require any additional document or information or make any inquiry as it sees fit in order to verify that that environmental, safety or health concerns are appropriately considered. (3) The Authority may only issue an approval permit in respect of any upstream and midstream operation or activity under these or any regulations where it is satisfied that any potential environmental, safety or health risks have been appropriately considered and mitigated.
Coordination of safety work.	62.	A contractor, permit holder or a midstream operator shall coordinate the operation of safety systems for all operations at a facility.
Support services.	63.	A contractor, permit holder or a midstream operator shall have procedures and measures intended to ensure the safety, reliability and integrity of – (a) fire-fighting services; (b) transport services; (c) supply services;

		(d) control and emergency centres; (e) rescue and evacuation services; (f) suppliers of alternative emergency services; and (g) safety and health at work service.
Preparation for operation.	64.	Prior to the entry into operation of an installation, a contractor, permit holder or a midstream operator shall establish a programme for the control and management of safety, the results of which shall be documented.
Offshore communication.	65.	(1) For all manned offshore facilities, the contractor, permit holder or midstream operator shall ensure that working radio or telephone communication lines are in place between the facility and an onshore base. (2) Unless a person-in-charge has ordered that operations may temporarily preclude it, radio or telephone communications shall be made from the onshore base to the facility at least once in each period of three hours. (3) A contractor, permit holder or midstream operator shall ensure that suitable transportation is readily available to enable transport to the offshore facility, in the event that the onshore base is unable to contact a manned offshore facility, except for planned communication outages.
Control and monitoring of vessel and aircraft.	66.	A contractor, permit holder or midstream operator shall ensure that any transportation by a vessel or aircraft between an onshore base and an offshore facility is controlled and monitored from the onshore base or the offshore facility or both.
Decommissioning.	67.	(1) In executing decommissioning operations a contractor, permit holder or midstream operator shall— (a) restore and remediate the relevant area to as near original state as possible prior to the operations as far as is practicable or to such state as is otherwise provided in the approved final decommissioning plan; (b) ensure the safety of local communities in the areas previously subjected to the upstream and midstream; (c) ensure the removal, reuse, recycling and disposal of materials and equipment resulting from the dismantling of facilities; and (d) ensure correct handling, treatment, transport and final disposal of all the waste produced, in compliance with Kenyan law and Best Petroleum Industry Practices. (2) Every licensee shall establish a Decommissioning and Site Restoration Fund or provide an EHS performance bond acceptable to the Authority and the National Government agency responsible for environment prior to commencement of operations. (3) The fund or bond shall cover: (a) dismantling and removal of facilities; (b) remediation of contaminated soils and groundwater; (c) restoration of land, biodiversity, and community infrastructure; and (d) long-term monitoring of decommissioned sites. (4) The amount shall be calculated based on an Authority-approved estimate and reviewed every five (5) years.

		(5) The Authority may call upon the bond in cases of abandonment, insolvency, or non-compliance. (6) The Authority in consultation with any other relevant government agency shall issue a contractor, permit holder or midstream operator with a Clearance Certificate for fully decommissioned and restored sites.
Sub-Division 2 – Safety zones		
Safety zones	68.	(1) Safety zones and operational safety distances for upstream and midstream petroleum operations shall be as specified in the SEVENTEENTH SCHEDULE and interpreted through each operator's approved Safety Case. (2) The contractor shall identify, survey, map and geo-reference the site-specific extents of these zones and submit them to the Authority for review and recommendation for the Cabinet Secretary's approval prior to construction or operation. (3) The Cabinet may, on the advice of the Authority enlarge the specified distances where justified by quantitative risk assessment, thermal radiation or dispersion modelling, topography, or population density. (4) Safety zones may extend above, around or below a facility or pipeline and shall cover all areas reasonably foreseeable to be affected by fire, explosion, toxic release or mechanical failure. (5) The Cabinet Secretary, on advice of the Authority, may declare or vary any Safety zone by notice in the <i>Kenya Gazette</i> and the Authority shall publish coordinates and descriptions on its website and notify affected communities.
Control and restrictions within Zones	69.	(1) No unauthorised person, vehicle or vessel shall enter, anchor, trawl, park, excavate, vend, or undertake any activity within a Safety Zone without the written permission of the Cabinet Secretary on the recommendation of the Authority. (2) The Contractor shall erect physical barriers, fencing, access control gates and multilingual warning signage around declared Safety Zones. (3) Safety zones shall remain free of permanent dwellings, schools, clinics, markets, livestock and public water points in accordance with the SEVENTEENTH SCHEDULE. (4) Where engineering controls (fire walls, gas barriers or blast bunds) achieve equivalent protection, the Authority may authorise specific activities within a safety zone subject to conditions. (5) Marine Safety Zones shall be marked by aids to navigation and electronically charted in coordination with the Kenya Maritime Authority (KMA).
Gazettement and Amendment of Zones	70.	(1) The Cabinet Secretary, on the advice of the Authority, may publish in the <i>Kenya Gazette</i> – (a) the GPS coordinates and boundaries; (b) a description of installations and nearby landmarks; and (c) restrictions on entry and operations. (2) The Cabinet Secretary may, within fourteen days and upon advice by the Authority, in cases of accidents and emergencies establish a new safety zone

		or extend an existing safety zone where this is considered necessary to prevent or limit— (a) risk of injury or loss of life; (b) significant damage to facilities or surrounding property; (c) pollution or other environmental damage; or (d) substantial interruption to production.
Monitoring of safety zones.	71.	(1) The Contractor shall implement community awareness programmes and engage local administrations to maintain zone integrity. (2) The Authority shall carry out inspections and may undertake joint operations with County Governments, NEMA, DOSHS and the Kenya Police Service to remove illegal activities or structures. (3) Any encroachment or violation shall be reported to the Authority within twenty-four (24) hours, and the Authority shall recommend to the Cabinet Secretary and other agencies the appropriate corrective measures. (4) The relevant government agency responsible for the environment shall monitor environmental impacts within zones and require remediation of any contaminated areas.
Offshore safety zones.	72.	(1) A contractor, permit holder or midstream operator of a facility within a safety zone located offshore shall— (a) alert a vessel about to enter a safety zone when it has no right to enter such area; (b) alert vessels outside a safety zone if the vessels may constitute a danger to safety of the upstream and midstream; (c) refuse to allow an unauthorised vessel entry into the safety zone; (d) establish marine patrols and automatic identification system (AIS) monitoring to detect intrusions and prevent collisions. (e) request the Kenya Maritime Authority to issue notices to mariners and navigational warnings under the Merchant Shipping Act, Cap 389 about the safety zone; and (f) consent to temporary or permanent aids to navigation established under sub-section 221(2) of the Merchant Shipping Act, Cap 389 and necessary for the safety zone. (5) The Kenya Maritime Authority shall approve and supervise the installation of temporary or permanent aids to navigation serving offshore safety zones
Notification.	73.	(1) The Contractor shall monitor all operations within and adjacent to safety zones and Buffer Zones for encroachment. (2) A contractor, permit holder or midstream operator shall, within forty-eight hours, inform the Authority in writing of— (a) any violation of a safety zone; and (b) any activity in or near a safety zone which may constitute a danger to safety of upstream and midstream operations, facilities, the public and personnel. (3) The Authority shall notify the Cabinet Secretary upon receiving any notification under sub-regulation 1(a) or 1(b) and advise the Cabinet Secretary on whether to extend the safety zone.
Sub-Division 3 – Pipeline and Storage Facility Safety		

Special provisions on pipeline and storage facility signage.	74.	(1) Prior to the commencement of the operation of a pipeline or a storage facility, a midstream operator shall install warning signs to inform the public of the location of the pipeline and attendant dangers. (2) A contractor, permit holder or midstream operator shall install and maintain warning signs in a prominent, visible location, and in accordance with standards approved by the Authority and best petroleum industry practices. (3) Where a pipeline crosses a road, railway or watercourse, a contractor, permit holder or midstream operator shall install a pipeline warning sign on both sides of the crossing point. (4) A contractor, permit holder or midstream operator shall put in place measures for way leave security and maintenance using best petroleum industry practices.
Procedures for incidents and emergencies for pipeline and storage facility systems.	75.	Prior to the commencement of the operation of a pipeline or storage facility, a midstream operator shall ensure that procedures and measures are in place to deal with— (a) the accidental loss of petroleum from the pipeline or storage tank; (b) the discovery of a defect in or damage to the pipeline or storage tank or of any other emergency affecting the pipeline or storage tank; and (c) the failure of any ancillary system.
Safe operating practices for pipeline and storage systems.	76.	A midstream operator shall ensure that the safety case for the operation of a pipeline or storage facility includes the development, review, and maintenance of site-specific operating standards that outline the procedures to be followed during operations.

PART IV –HEALTH AND SAFETY

Division 1 – General Requirements

Duty to maintain a healthy environment.	77.	(1) A contractor, permit holder or midstream operator shall ensure that work at all levels of the facility complies with the Act, these Regulations, and the Kenya Standards on occupational safety and health, best petroleum industry practices, and any other applicable Kenyan laws. (2) A contractor, permit holder, or midstream operator shall— (a) establish policies related to occupational safety and health; (b) focus principally on preventing the occurrence of incidents, accidents or hazardous situations; (c) ensure continuous monitoring and control of the working environment and the health of the workers when necessitated by risk factors in a facility or during upstream and midstream; (d) make a survey of hazards and carry out a risk assessment for each operation; (e) ensure systematic prevention, management and follow-up on workers who are absent from work due to sickness; and (f) ensure continuous systematic improvement of safety and health procedures and outcomes.
Alcohol and intoxicants	78.	(1) A contractor, permit holder or a midstream operator shall ensure that— (a) no workers are under the influence of alcohol or other intoxicants while working during upstream and midstream; and

		(b) no alcoholic beverages or any other intoxicants are allowed to be brought on to or consumed at a workplace or site of the upstream and midstream.
Fatigue and excessive exposure to hazardous conditions.	79.	(1) A contractor, permit holder or a midstream operator shall ensure that workers shall not work for — (a) a continuous period; (b) successive continuous periods; or (c) for a duration that could reasonably be expected to have an adverse effect on the worker's safety and health or that of any other person. (2) A contractor, permit holder or a midstream operator shall ensure that working hours and shift schedules consider the need to minimise periods of prolonged of exposure of workers to hazardous conditions including exposure to — (a) extreme temperatures; (b) noise or vibrations; (c) adverse weather and external atmosphere; (d) dangerous emissions; or (e) confined spaces.
Asphyxiant gas.	80.	(1) A contractor, permit holder or a midstream operator shall institute measures to prevent the risk of release and accumulation of gases into a work environment likely to create asphyxiating conditions due to displacement of oxygen. (2) Prevention and control measures to reduce risks of asphyxiant gas release under sub-regulation (1) may include — (a) design and placement of nitrogen or any other asphyxiant gas venting systems according to Kenya Standards and best petroleum industry practices; (b) installation of an automatic emergency shutdown system which can — (i) detect and warn of the uncontrolled release of asphyxiant gases; (ii) initiate forced ventilation; (iii) minimise the duration of releases; and (iv) implementation of confined space entry procedures as may be considered appropriate under best petroleum industry practices.
Radiation protection.	81.	(1) A contractor, permit holder or a midstream operator shall minimise the use of radioactive substances in operations, and where radioactive substances are used, ensure safe transportation, handling, storage and disposal of the radioactive substances in accordance with the Safety Data Sheet from the manufacturer. (2) Prior to the commencement of the operation, a contractor, permit holder or a midstream operator shall install warning signs to inform the public on the location of the radioactive material which may pose dangers. (3) A contractor, permit holder or a midstream operator shall handle, store, transport or dispose of radioactive substances in accordance with the Kenya

		Standards, best petroleum industry practices, and any other applicable Kenyan laws. (4) A contractor, permit holder or a midstream operator shall ensure that all workers and any other persons present at facilities are informed of and protected against the dangerous effects of radiation.
Noise and Vibrations.	82.	(1) A contractor, permit holder or a midstream operator shall ensure that a facility is operated in accordance with any Kenya Standards and best petroleum industry practices with respect to the presence of noise and vibrations. (2) A contractor, permit holder or a midstream operator shall ensure that a facility is operated in a manner that— (a) reduces the risk of injury to workers due to exposure to noise and vibrations; (b) ensure that the noise level and acoustics do not preclude communication of significance to safety; and (c) ensures that the noise level in any worker break rooms, accommodation or recreation areas is reduced as much as possible. (3) A contractor, permit holder or a midstream operator shall continuously monitor and record noise and vibrations levels and shall make all records available to the Authority on request.
Lighting.	83.	(1) A contractor, permit holder or a midstream operator shall ensure adequate lighting for the performance of all work at the facility. (2) A contractor, permit holder or a midstream operator shall ensure lighting at the facility complies with applicable national and international standards, considering— (a) the type of activity; (b) the suitable distribution of lighting appliances; and (c) the harmonisation of light colour with the prevailing context in the facility.
Division 2 – Chemicals and Hazardous Substances		
Exposure to chemicals and hazardous substances.	84.	(1) A contractor, permit holder or midstream operator shall use the best industry practice to prevent discharge of any chemicals and other hazardous substances into the environment. (2) In selecting and applying equipment and systems for storage, use, recovery and destruction of chemicals and other hazardous substances, a contractor, permit holder or midstream operator shall consider the following— (a) the safety and health of workers; (b) corrosion or other forms of material decomposition; (c) fire and explosion hazards; and (d) the risk of pollution.
Chemicals, explosives and hazardous substances	85.	(1) A contractor, permit holder, or midstream operator shall apply to the relevant government agency for a permit to use chemicals and other hazardous substances.

		(2) A contractor, permit holder or midstream operator shall comply with all provisions of relevant Kenyan law and best petroleum industry practice on the importation, transportation, storage, use and disposal of chemicals, chemical products, and other hazardous substances. (3) The Authority may develop guidelines relating to the use of and presence of chemicals and other hazardous substances in upstream and midstream operations. (4) A contractor or midstream operator who intends to use explosives in upstream and midstream petroleum operations shall do so in accordance with the applicable Kenyan law, these Regulations, best petroleum industry practices and other applicable guidelines. (5) ...
Explosives Management for petroleum operations	86.	(1) A contractor, permit holder or midstream operator who intends to use explosives shall, as part of the Safety Case or facility EHS Management System, demonstrate that: (a) all licences and permits required under the Explosives Act are in place and current; and (b) explosives risks have been identified and controlled for each petroleum operation where explosives may be used, including seismic, drilling, perforating, stimulation and plug-and-abandonment. (2) The Safety Case shall include a concise Explosives Risk Assessment covering: (a) interaction between explosives and hydrocarbons, H₂S and other flammable/toxic atmospheres; (b) potential impact on well integrity, pressure control equipment, flowlines and pipelines; and (c) environmental consequences of misfires, unplanned detonations or losses of explosives. (3) A contractor, permit holder or midstream operator shall ensure that, in addition to complying with the Explosives Act: (a) Activities such as hot work, lifting operations, well testing, product transfer or pipeline pigging are not carried out in conflict with explosives loading or firing, unless controlled under a documented Simultaneous operation (SIMOPS) plan; (b) clear exclusion zones and communication protocols are defined and enforced around the well, shot line, pipeline or facility during explosives operations; (c) The status of key safety barriers (well control, blowout preventers, isolation valves, ESD systems, ignition control) is verified and recorded before explosives are run in hole or fired; (d) any temporary defeat or bypass of safeguards for explosives operations is formally risk-assessed, authorised and restored immediately after completion;

		(e) sources of unintentional initiation such as radio-frequency transmitters, mobile phones, tracking devices, stray electrical currents and static build-up are identified and controlled at the wellsite, pipeline or seismic operation; (f) site-specific rules for radio silence or controlled communications during explosives operations are implemented; (g) explosives run in hole (perforating guns, setting tools, etc.) are compatible with the well design, pressure, temperature and fluids present; and (h) procedures are in place to prevent shooting into un-isolated formations or into compromised casing or tubulars; and (i) misfire procedures explicitly address well control, retrieval or abandonment of tools left in hole and verification of well integrity after operations.
Explosives use in Seismic, Pipeline and Terminal Operations	87.	(1) In addition to the Explosives Act requirements, the following upstream/midstream aspects shall be addressed: (a) location and depth of shot holes are planned to avoid buried utilities, pipelines, water wells and sensitive ecological or cultural sites; (b) charge sizes and spacing are selected to prevent damage to nearby structures, wells or pipelines; (c) arrangements are in place for managing unexploded charges and preventing third-party interference after crews demobilise; (d) any use of explosives for pipeline dent removal, cutting, trenching or demolition near hydrocarbon-containing systems is prohibited unless justified by a detailed risk assessment and approved by the Authority; and (e) alternative non-explosive cutting or demolition techniques shall be preferred wherever reasonably practicable.
Handling of explosives in Petroleum operations	88.	(1) Contractors and permit holders shall ensure that personnel directly involved in explosives operations not only meet the qualifications required under the Explosives Act, but also receive training on: (a) petroleum-specific hazards (well control, H₂S, hydrocarbon releases, confined spaces); (b) SIMOPS management; and (c) emergency response in hydrocarbon facilities. (2) Incident and near-miss reports involving explosives in petroleum operations shall be shared with the Authority, including root-cause analysis and lessons learnt, so that systemic improvements can be tracked across the upstream and midstream sector.
Environment, Safety and Health assessment.	89.	(1) A contractor, permit holder or midstream operator intending to construct or operate a facility, process plant or technology that utilizes chemicals and other hazardous substances shall undertake an Environmental Impact Assessment in accordance with the applicable environmental laws. (2) A contractor, permit holder or midstream operator intending to store, transport, handle, import, export, use, manufacture, or distribute chemicals

		and other hazardous substances shall undertake a hazard and risk assessment in relation to that planned activity as specified in the FIFTEENTH SCHEDULE.
Labelling and packing of chemicals and hazardous substances.	90.	(1) A contractor, permit holder or midstream operator shall ensure that all containers of chemicals, chemical products or hazardous substances used at the facility or in operations are labelled and packaged in a manner that — (a) is legible or easily intelligible to workers and of an appropriate size; (b) uses uniform symbols and durable colours; and (c) complies with all applicable Kenyan laws and regulations; and includes— (i) the commercial name and identification of the chemical product, including batch of manufacture and supplier; (ii) the classification of the product according to the relevant national and international standards; (iii) the identification of specific risks associated with the use of the chemical product; and (iv) any relevant safety precautions. (2) A contractor or a midstream shall maintain safety data sheets for all chemicals and hazardous substances within the facility, following the format provided in the SECOND SCHEDULE.
Operations involving hazardous substances.	91.	(1) A contractor, permit holder or midstream operator shall maintain an up-to-date inventory of chemicals and other hazardous substances and products stored on premises or used in operations, including information on— (a) physical, chemical and hazardous properties; (b) preventive safety measures; and (c) first-aid treatment. (2) A contractor, permit holder or a midstream operator shall regularly control and assess the levels of exposure of workers to chemicals and other hazardous substances and products. (3) A contractor, permit holder or a midstream operator shall adopt all reasonably practicable measures to protect workers from exposure to chemicals and hazardous substances including— (a) displaying signs at appropriate distances warning of the presence of chemicals and other hazardous substances; (b) training workers in the safe use of chemicals and other hazardous substances to ensure that workers— (i) recognize and understand the nature of the relevant risks involved in their activities; and (ii) adopt appropriate safety measures. (c) providing suitable personal protective equipment; (d) ensuring first aid measures and emergency procedures are adopted in case of accident; and (e) providing toxic gas detection and protection systems with alarms.

Notification to the Authority.	92.	A contractor, permit holder or midstream operator shall notify the Authority and relevant authority of all chemicals or hazardous substances present or likely to be present at facilities or to be used in operations using the form provided in THIRD SCHEDULE— (a) thirty (30) days before the commencement of installation or operation of a facility; (b) every six (6) months after the initial notification under sub-regulation 1 (a); and (c) in relation to facilities existing at the date of commencement of these Regulations, within sixty (60) days from that date.
Division 3 – Personal Protective Equipment		
General requirement.	93.	(1) A contractor, permit holder or midstream operator shall ensure that all workers use personal protective equipment which is appropriate for the risks associated with operations and the environment, including, but not limited to, clothing, respiratory devices, and protective shields and barriers specifically designed to protect the face, head, body, sensory functions and extremities. (2) A contractor, permit holder or midstream operator shall provide personal protective equipment and ensure that it is maintained in a sanitary and reliable condition. (3) A contractor, permit holder or midstream operator shall ensure that any person within a facility who is likely to be exposed to a hazard uses protection equipment in accordance with these Regulations and best petroleum industry practices. (4) A contractor, permit holder or midstream operator shall ensure that protection equipment is— (a) be designed to protect the person from the incident, hazard or accident; (b) not in itself create a hazard; (c) be maintained, inspected and tested by a competent person; and (d) be maintained in a clean and sanitary condition by a competent person. (5) A contractor, permit holder or midstream operator shall ensure that any person likely to be exposed to dangers in operations involving moving vehicles wears a high-visibility vest or other high-visibility clothing.
Hazard assessment.	94.	(1) A contractor, permit holder or midstream operator shall develop a hazard assessment report that assesses the workplace to determine the nature and extent of likely hazards which necessitate the use of personal protective equipment. (2) The hazard assessment report shall support the selection of personal protective equipment and shall, at a minimum, consider the use of the following— (a) head protection; (b) eye and face protection; (c) protective footwear and hand wear;

		(d) respiratory protection; (e) skin and special clothing; (f) fall-protection systems; (g) protection against drowning; (h) protection from extreme temperatures; and (i) protection from excessive noise and vibrations. (3) The hazard assessment report shall be updated when so required and in any case, at least once every year. (4) A contractor, permit holder, or midstream operator shall— (a) communicate personal protective equipment requirements to the workers; and (b) ensure that personal protective equipment provided to workers properly fit to perform their intended functions.
Training.	95.	(1) A contractor, permit holder or midstream operator shall provide training on personal protective equipment and require workers to demonstrate a proper understanding of at least the following— (a) the situations necessitating personal protective equipment; (b) the relevant type of personal protective equipment for each situation; (c) any limitations of the personal protective equipment; (d) the proper use and adjustment of personal protective equipment; and (e) the proper care, maintenance, useful life and disposal of the personal protective equipment. (2) A contractor, permit holder or a midstream operator shall ensure that training is provided at regular intervals and that additional training is provided in situations where— (a) any changes in the work environment or in the nature of personal protective equipment used may necessitate further training to maintain an acceptable level of safety; or (b) a worker demonstrates any insufficiency in knowledge or use of assigned types of personal protective equipment.
Division 4 – Medical Examinations		
General requirements.	96.	(1) A contractor, permit holder or midstream operator shall comply with the medical examination requirements as prescribed under the applicable Kenyan laws and best petroleum industry practice.
Medical facilities and first aid services.	97.	(1) A contractor, permit holder or midstream operator shall provide adequate first aid and emergency medical facilities to deal with incidents and accidents likely to occur in a facility or during upstream and midstream operations. (2) A contractor, permit holder or midstream operator shall undertake a first aid needs assessment and revise it regularly whenever there are changes in the processes. (3) A contractor, permit holder or midstream operator shall provide a first aid box, first aid station or first aid room as appropriate and affix a notice in

		every workroom, including the name and contact information of a person-in-charge of the first aid who shall be readily available during working hours. (4) In addition to requirements under sub-regulations (1) and (3), a contractor, permit holder, or midstream operator shall maintain— (a) a portable oxygen inhalation rescue apparatus in the facility or during upstream and midstream; and (b) where the eyes or other parts of the body of a person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.
Offshore workers.	98.	(1) A contractor, permit holder or a midstream operator shall ensure that – (a) offshore workers undergo periodic examinations to confirm that they are in good physical and mental health and free from alcohol or drug dependency in accordance with the fitness requirements in any Kenya Standards.; (b) offshore workers are declared to be clinically fit to work in an offshore environment after examinations carried out in accordance with the applicable Kenyan safety and health laws for work at sea; and (c) workers conducting diving operations have a valid medical certificate establishing that the diver is fit to dive in accordance with the fitness requirements in any Kenya Standards. (d) ensure that offshore workers have undertaken safety and emergency training.
Information.	99.	(1) A contractor, permit holder, or midstream operator shall in compliance with applicable Kenyan laws, post in accessible, conspicuous locations in a workplace, the following— (a) information regarding first aid to be rendered for any injury, occupational disease or illness likely to be sustained or contracted in the workplace; (b) information regarding the location of first aid attendants, first aid stations and first aid rooms; and (c) A safety score board indicating all near misses, accidents and fatalities that have occurred in respective years in all of the premises held by a contractor, permit holder or a midstream operator. (2) A contractor, permit holder or midstream operator shall ensure that an up-to-date list of telephone numbers for use in emergencies is available and conspicuous at every telephone location.
Ambulance Stations.	100.	(1) During upstream and midstream petroleum operations, a contractor, permit holder or midstream operator shall provide means for prompt transportation of injured persons to an equipped physician or hospital, or a communication system for contacting a readily available equipped ambulance service. (2) The emergency medical transportation, when provided by a contractor, permit holder or midstream operator, shall be equipped with the first aid kit as provided for under these Regulations, applicable standards and other relevant Kenyan laws.

Training of rescue teams and personnel in first aid.	101.	A contractor, permit holder or midstream operator shall ensure workers undergo annual training in the use and maintenance of emergency rescue equipment, first aid and resuscitation apparatus.
PART V – ENVIRONMENTAL PROTECTION		
Division 1		
Environmental impact assessment.	102.	(1) Where a contractor, permit holder or midstream operator proposes any action governed by these Regulations which either – (a) may require an environmental impact assessment study under the applicable Kenyan laws; or (b) may be related to an activity which is subject to environmental impact assessment, the contractor, permit holder or midstream operator shall obtain an environmental impact assessment licence from NEMA prior to commencement of the activity. (2) Any application submitted to the Authority for an approval relating to the proposed activity shall be accompanied by the EIA Project Report or EIA Study Report duly licensed by NEMA. (3) The Authority shall, in reviewing an application, ensure alignment with the Petroleum Act, regarding conservation, environmental protection, waste management, and safe operations.
Climate change obligations.	103.	(1) The contractor, permit holder or midstream operator shall comply with any climate change obligations imposed by any applicable Kenyan laws and international climate obligations. (2) In considering an application for approval under these regulations, any government entity with responsibility under these Regulations may require the contractor to provide information in their submissions to enable a consideration of the consistency of proposed action with any – (a) any applicable climate change policy, strategy or plan; and (b) any climate change duties imposed by any applicable Kenyan law.
Environmental and Safety Management Systems	104.	(1) A contractor, permit holder, or midstream operator shall develop, implement and maintain Management Systems consistent with ISO standards, and best petroleum industry practice. (2) The Environmental and Safety Management Systems shall include – (a) environmental policy and objectives; (b) roles, responsibilities and competencies; (c) operational controls for pollution prevention; (d) emergency preparedness and response; and (e) monitoring, reporting, and continuous improvement mechanisms.
Environmental Baseline and Monitoring Programme	105.	(1) Prior to commencement of operations, a contractor, permit holder or midstream operator shall conduct baseline studies covering air quality, water quality, soil quality, biodiversity, noise, and socio-economic conditions. (2) A continuous Environmental Monitoring Programme shall be implemented, in accordance with laws relating to; (a) water quality; (b) air emissions and ambient air; (c) noise and vibration; and

		(d) soil and sediment sampling. (3) Monitoring results shall be submitted semi-annually to the Authority and NEMA or as otherwise required.
Pollution prevention.	106.	At all phases of operations, the contractor, permit holder, or midstream operator shall comply with pollution prevention measures as required by the Act, these regulations, relevant environmental laws and the best petroleum industry practice.
Baseline Survey, Sensitive Receptor Mapping and Ecological Characterization	107.	(1) Every contractor, permit holder or midstream operator shall integrate land protection, vegetation conservation, soil management and biodiversity safeguards into the design, construction, operation, suspension, decommissioning and post-closure phases of petroleum activities. (2) All operations shall comply with EMCA, 1999 and subsidiary regulations, the Petroleum Act, 2019, and best petroleum industry practice regarding the protection of land, ecosystems, flora and fauna. (3) Prior to site development, the operator shall conduct baseline ecological surveys identifying: (a) wetlands, riparian zones, riverine ecosystems; (b) forest reserves and protected areas; wildlife corridors, migratory routes and breeding grounds; (c) vulnerable, threatened or endangered species; and (d) ecologically sensitive, fragile or culturally significant landscapes. (4) Sensitive receptors identified shall be mapped and integrated into project planning, risk assessment, safety case development, and environmental management plans.
Mitigation Hierarchy and Biodiversity Management	108.	(1) Operators shall apply the mitigation hierarchy in all activities: (a) Avoidance; (b) Minimisation; (c) Restoration/Rehabilitation; (d) Offsetting, where strictly necessary. (2) A Biodiversity Management Plan shall be prepared and approved by the Authority and NEMA, outlining avoidance measures, habitat protection strategies, monitoring indicators, and restoration commitments. (3) Activities within sensitive ecosystems shall include enhanced safeguards consistent with the EMCA (Biodiversity Regulations), IFC Performance Standard 6 and international standards.
Vegetation Management, Land Disturbance and Conservation	109.	(1) Unnecessary vegetation clearing shall be avoided and operations restricted strictly to approved footprints, corridors or wellpads. (2) Topsoil and subsoil shall be stripped, stored separately and conserved for future site restoration. (3) Land disturbance shall be minimised through: (a) erosion control measures; (b) stormwater and drainage management; (c) dust suppression and soil stabilisation; and (d) minimisation of habitat fragmentation through optimal route selection for roads, pipelines and utilities.

		(4) All clearing of forested areas or disturbance within forest land shall require prior written approval from the Kenya Forest Service (KFS) and NEMA, accompanied by a Vegetation Restoration and Re-Afforestation Plan. (5) Operators shall engage local communities, County Governments, forest user associations and landowners in land rehabilitation, vegetation conservation and biodiversity protection activities. (6) The operator shall support community-based initiatives, including tree planting, rangeland restoration, watershed protection and ecosystem enhancement around operational areas.
Habitat Protection, Invasive Species and Ecosystem Integrity	110.	(1) Operators shall prevent the introduction, establishment and spread of invasive species through proper control of equipment, vehicles, materials and personnel. (2) Habitat fragmentation shall be minimised through clustering of facilities, use of existing access routes, limiting seismic lines, and restricting off-road driving. (3) Disturbed habitats shall be restored progressively during operations and not deferred until decommissioning.
Ecological Setbacks	111.	(1) Operators shall establish and maintain safety zones between operational areas and sensitive receptors, including rivers, wetlands, wildlife habitats, community areas and cultural sites, as prescribed in Schedule Seventeenth. (2) Buffer zones shall be incorporated into layout plans, risk assessments, emergency response plans and Safety Case submissions.
Land and Vegetation Registers	112.	(1) The operator shall maintain an updated Land and Vegetation Register containing: (a) all land parcels under use; (b) cleared and disturbed areas; (c) soil stockpiles; (d) areas under restoration or re-vegetation; and (e) restored and rehabilitated sites. (2) The register shall be submitted to the Authority and NEMA annually or upon request.
Restoration, Rehabilitation and Post-Operation Closure	113.	Upon completion, suspension or termination of operations, the operator shall: (a) Restore the land to its original condition or an agreed post-operation state, including: i. soil reconditioning, levelling and stabilisation; ii. re-vegetation using native species; and iii. removal of waste, contaminated soils and obsolete infrastructure. (b) Re-afforest previously forested or vegetated areas, ensuring species diversity, soil health and survival monitoring for at least two consecutive rainy seasons. (c) Submit a Land and Vegetation Restoration Report certified by a NEMA-licensed environmental expert to the Authority and copied to NEMA and KFS, for review and approval
Division 2 – Waste Management General Requirements		

Application.	114.	A contractor, permit holder or a midstream operator shall ensure that waste deriving from upstream and midstream petroleum operations and any other associated operational wastes is managed in accordance with the Act, these Regulations, all applicable Kenyan environmental, safety, health and maritime laws and best petroleum industry practices.
General requirements.	115.	(1) A contractor, permit holder or a midstream operator may only transfer waste to companies or individuals that hold a valid licence from NEMA for waste transportation, storage, treatment or final disposal. (2) A contractor, permit holder or midstream operator shall be liable for the management of production, transportation, storage, treatment and disposal of wastes for the activities or omissions of the companies or individuals referred to in sub-regulation (1). (3) A person who carries out the production, transportation, storage, treatment and clean up or disposal of wastes arising out of upstream petroleum operations without a license or fails to comply with the terms and conditions prescribed in the license issued commits an offence and is liable on conviction to a fine of not less than Kenya Shillings twenty million shillings or imprisonment of not less than five years or both
Waste generators.	116.	(1) A contractor, permit holder or a midstream operator that generates wastes shall ensure that— (a) it adopts policies, processes and procedures aimed at minimising wastes deriving from upstream and midstream as far as practicable; (b) appropriate practices are adopted for waste storage, transportation, treatment, disposal and utilisation; (c) waste deriving from upstream and midstream is correctly characterized and classified; (d) the capabilities and limitations of any waste treatment and disposal methods are known; (e) accurate and complete waste related documentation and manifesting is developed and maintained; (f) its workers are properly trained in waste management; (g) waste carriers and receivers are appropriately informed about the waste's properties; (h) the required approvals and operational requirements are in place for any on-site handling, transportation, treatment, and disposal method; and (i) a waste management provider shall have the required approvals and operational requirements in place for off-site handling, transportation, treatment and disposal. (2) A contractor, permit holder or midstream operator shall maintain all facilities, vessels, worksites and any other relevant location in such manner which ensures that waste does not pose a safety hazard or nuisance or adversely affect air, soil, surface water or groundwater.

		(3) A contractor, permit holder or midstream operator shall be liable for the activities or omissions of parties to whom it may transfer waste in the course of the waste management activities.
Waste management plan.	117.	(1) Prior to commencing any upstream and midstream that may generate waste, a contractor, permit holder or midstream operator, in consultation with the Authority, shall develop a waste management plan and submit it for approval to NEMA and any other relevant entity. (2) The waste management plan shall— (a) comprehensively identify all wastes that will be generated; (b) establish a clear strategy for waste management, including options for waste elimination, reduction and recovery at source, reuse, recycling, treatment and responsible disposal in accordance with best petroleum industry practices and best available technologies; and (c) contain a mechanism allowing waste consignments to be tracked from the originating location to the final waste treatment and disposal location.
Characterisation and classification	118.	(1) A contractor, permit holder or midstream operator that generates waste shall characterise and segregate waste by separating hazardous waste from non-hazardous waste. (2) Characterisation, classification and management of hazardous waste shall be conducted in accordance with the applicable Kenyan law, these Regulations, best petroleum industry practices and other applicable guidelines. (3) A contractor, permit holder or midstream operator shall use the relevant parameters of the waste characterisation and classification to assess and determine the appropriate handling, transportation, treatment, and disposal of that waste, in accordance with the waste management plan.
Waste tracking and transportation.	119.	(1) A contractor, permit holder or a midstream operator that generates waste shall implement a waste tracking system which ensures that the quantities and characteristics of all generated wastes, both hazardous and non-hazardous, as well as their final treatment and disposal methods are known. (2) NEMA shall require a contractor, permit holder or a midstream operator to prepare an annual waste disposal report. These reports shall contain information on the type, quantity and ultimate treatment and/or disposal of wastes, including those treated and/or disposed on-site. (3) A contractor, permit holder or a midstream operator that is responsible for shipping hazardous waste to another location shall create a waste manifest prescribed in the FOURTH SCHEDULE. (4) A waste manifest shall not be required— (a) when the quantity of waste does not exceed 5 kilograms or 5 litres; (b) when the waste is treated or disposed on-site; or (c) when the waste is uncontaminated produced water. (5) A copy of a manifest and supporting documents shall be retained by a contractor, permit holder or a midstream operator that generates waste,

		transporter, and waste receiver for a minimum of two (2) years from the date of shipment.
General manifest requirements.	120.	(1) Except when otherwise prescribed in these Regulations, a manifest is required for each quantity of hazardous waste being transported. (2) Where one vehicle, vessel or other means of transportation is used for single or multiple trips to move wastes, a waste manifest shall be required for each trip. (3) Where more than one vehicle, vessel or other means of transportation is used or multiple trips are required to move a quantity of the specific waste, a waste manifest shall be required for each vehicle, vessel or other means of transportation and for each trip. (4) Shipments of mixed wastes comprised of several waste types shall be manifested as the most dangerous waste contained if the individual quantities of each waste type are not known. A contractor, permit holder or a midstream operator that generates waste shall indicate the total quantity of the waste on the manifest. The waste generator shall indicate on the manifest or attachment the waste types included in the mixed waste shipment.
Manifest discrepancies.	121.	(1) If the receiver of waste notes a significant discrepancy regarding either the quantity or characteristics of the waste shipped relative to what was received, the receiver shall notify the generator and the transporter within twenty-four (24) hours of receipt of the waste. (2) In cases where a significant discrepancy is the result of an action by the transporter (i.e. accident, leak, etc.) the transporter shall notify the generator within twenty-four (24) hours of such occurrence. (3) As soon as practicable a contractor, permit holder or a midstream operator shall notify the Authority of any significant discrepancy by the quickest and most effective means available. (4) For discrepancies not considered to be significant, within sixty (60) days of the shipment date, a contractor, permit holder or a midstream operator shall complete the corresponding section of the manifest and submit it to the Authority.
Waste storage areas — general requirements.	122.	(1) A waste storage area, either stand-alone or as part of a facility or other location of activities, shall be designed, constructed, and operated so that it complies with these Regulations, the Kenya Standards and best petroleum industry practices. (2) When selecting the location of the waste storage area, a contractor, permit holder or a midstream operator shall consider the following — (a) the risk of environmental damage including any impact to the quality of surface and groundwater, health of humans, animals, and plants during construction, operation, and decommissioning of the facility; (b) drainage ways and areas prone to seasonal flooding; (c) the location for the facility should be at least 100 metres from the normal high-water mark of a body of water, permanent stream, or water well used for domestic purposes; and

		(d) any environmentally sensitive areas or areas where the public may be directly impacted. (3) Waste storage areas shall be handled in a manner to ensure that — (a) produced fugitive air emissions or uncontrolled gases do not exceed the limits established in the applicable Kenyan laws; (b) uncontrolled fumes or gases sufficient to pose a risk of fire or explosion are not produced; (c) there is no threat to public health, safety, or the environment through other means; (d) a perimeter fence or other barrier is installed to prevent public and wildlife access to the storage area; (e) storage areas have signs at the entrance of the facility identifying the facility name, operator name, warning signs, emergency phone number, and categories of the wastes stored in the storage area as characterised, and classified under these Regulations; (f) procedures and mechanisms to control odours are in place; and (g) the areas are suitable for the type of waste stored. (4) An emergency response plan shall be maintained on-site at all times which describes appropriate measures to follow in the event of any emergency such as a fluid spill, tank fire or any other hazard. (5) Any waste or empty barrels used to contain waste shall not be stored for longer than one (1) year. (6) A contractor, a midstream operator or an operator of waste storage areas shall document and retain on-site the following records for a period of not less than two (2) years— (a) copies of all dockets for materials received and shipped; (b) a balance of the amount of waste stored at the facility at the beginning of each month; (c) for each receipt of waste material, the quantity, source, generator, type (characterisation), and date received; and (d) a closing inventory balance for each month identifying total quantities of waste materials received, volumes of waste materials sent for treatment and/or disposal, and the name and location of the treatment and/or disposal facility.
Waste treatment facilities— General requirements.	123.	(1) A contractor or a midstream shall ensure that a waste treatment facility shall be designed, constructed, and operated in accordance with these Regulations, the Kenya Standards and best petroleum industry practices. (2) A contractor, a midstream operator or a third-party operating a waste treatment facility shall implement a comprehensive groundwater monitoring program for their site. (3) NEMA may require a contractor, a midstream operator operating a waste treatment facility to submit monthly reports including the following— (a) an opening monthly inventory balance of wastes, residuals (liquids and solids), and/or products (recovered crude oil);

		(b) type, volume, origin and generator of each receipt of waste material; (c) the volume and deliveries (name and location of facility) of residuals and/or recovered crude oil; and (d) a closing monthly inventory balance of wastes, residuals (liquids and solids), and/or products (recovered crude oil).
Division 3 – Environmental Liability Policy		
Environmental Liability Policy	124.	A contractor, permit holder or midstream operator shall provide an Environmental Liability Policy in accordance with NINETEENTH SCHEDULE .
Requirement for Environmental Liability Assessment Report	125.	A contractor, permit holder or midstream operator shall, prior to submitting an Environmental Liability Policy or any equivalent financial assurance instrument, prepare and submit to the Authority an Environmental Liability Assessment Report (ELAR) undertaken by a competent expert approved by the relevant government agency as required under EIGHTEENTH SCHEDULE
Purpose of the Environmental Liability Assessment Report	126.	(1) The ELAR shall be used to – (a) determine the nature, scale and magnitude of environmental liabilities associated with petroleum operations; (b) quantify the reasonable worst-case discharge, remediation costs, socio-economic impacts and environmental sensitivities; (c) determine the appropriate minimum financial security, whether in the form of insurance, deposit bond, bank guarantee or commitment instrument; and (d) inform the Authority of the approval of the Environmental Liability Policy or equivalent financial assurance.
Acceptance of Environmental Liability Policy or Equivalent Financial Assurance	127.	In accordance with the Act, an application for a licence or a permit shall be accompanied by: (a) an Environmental Liability Policy issued by an insurer licensed by the Kenya Insurance Regulatory Authority; (b) a Deposit Bond issued in accordance with any other written law; or (c) a Bank Guarantee, Financial Guarantee, Escrowed Environmental Security Fund, or similar financial assurance instrument; or (d) any equivalent, valid, enforceable environmental financial assurance required under another national law or regulatory body, provided that— i. such instrument meets the minimum coverage and conditions prescribed by the Authority in accordance with the ELAR; and ii. the Authority shall review and approve the equivalency and sufficiency of such instrument.
Review and Approval by the Authority	128.	(1) The Authority shall, after reviewing the Environmental Liability Assessment Report – (a) determine the minimum coverage limits; (b) determine whether the presented instrument (insurance, deposit bond or equivalent) is adequate; (c) prescribe mandatory inclusions and prohibited exclusions; and (d) issue a written Financial Assurance Approval Notice.

		(2) No licence or permit shall be issued without the approval of Environmental Liability Assessment Report and submission of Environmental Liability policy.
Mandatory Requirements for Any Accepted Financial Assurance	129.	Regardless of the type of instrument, it must— (a) guarantee availability of funds for emergency response, containment, clean-up, remediation, restoration and compensation; (b) allow the Authority to directly call upon or activate the funds where an operator defaults; (c) remain valid for the entire lifecycle of operations and for an additional period as prescribed; (d) cover administrative, monitoring and regulatory cost recovery; and (e) comply with all conditions set out in Schedule 18 and 19.
Default by the Operator	130.	Where an operator neglects, refuses or fails to undertake required remediation— (a) the Authority shall notify the operator in writing; (b) the Authority may undertake or procure the required works; and (c) recover all costs directly from— i. the insurer under the Environmental Liability Policy; ii. the Deposit Bond or equivalent instrument; or iii. the operator.
Adjustment of Financial Assurance	131.	The Authority may require revision, increase or replacement of the policy or instrument where— (a) new risks emerge; (b) operations expand or change; (c) incidents occur; (d) new scientific information is available; or (e) the instrument is deemed insufficient.
Non-exemption Clause	132.	The Environmental Liability Policy or equivalent financial assurance shall not— (a) exempt the operator from compliance with any law; or (b) operate as a defence against civil or criminal liability.
Division 4 – Petroleum Industry Waste		
Produced water.	133.	(1) All produced water from a well shall be managed in accordance with these Regulations, Kenya Standards and best petroleum industry practices. (2) A contractor shall evaluate all feasible alternatives for the management and disposal of produced water and integrate them into the facility and production design such as— (a) injecting produced water into the reservoir to enhance oil recovery; (b) injecting produced water into a dedicated disposal well drilled to a suitable receiving subsurface geological formation; or (c) other uses for which the produced water may be safe and appropriate such as— (d) irrigation; (e) dust control; (f) use by other industry; or (g) any other feasible use recommended by the relevant agency.

		(3) A contractor shall ensure that sufficient storage capacity is included in facility's design to ensure continual operation, in the event of system failure or interruption of the disposal solution. (4) A contractor shall consider all disposal means to reduce the volume of produced water. (5) A contractor shall treat any produced water prior to discharge to meet the limits established by NEMA. (6) Where surface disposal methods are used, a contractor shall select such production chemicals that will minimize environmental hazards related to residual chemical additives in the produced water stream, by considering their application rate, toxicity, bioavailability, and bioaccumulation potential.
Flowback fluids.	134.	(1) All flowback fluids shall be managed in accordance with these Regulations, the Kenya Standards and best petroleum industry practices. (2) A contractor shall evaluate and integrate into the design feasible alternatives for the management and disposal of flowback fluids, different and separate from those of produced water, including— (a) temporary storage in sealed tanks for reuse in further hydraulic fracturing operations; and (b) temporary storage prior to injection into a suitable disposal well. (3) A contractor shall adequately document an assessment of alternatives. (4) Where no alternatives are technically, environmentally or economically feasible, flowback water shall be treated to meet the limits established by NEMA prior to its disposal.
Hydrostatic water testing.	135.	(1) A contractor shall manage hydrostatic water testing in accordance with these Regulations, the Kenya Standards and best petroleum industry practices. (2) A contractor, permit holder or midstream operator shall manage hydrostatic testing water in accordance with these Regulations, standards approved by the Authority and best petroleum industry practices as defined in said Regulations. (3) Following hydrotesting, hydrostatic testing waters may be disposed of by— (a) injection into a disposal well if one is available for this purpose; (b) other possible uses such as irrigation, dust control and use by other industry; or (c) discharge to surface waters or land. if the chemical nature of the test water is compatible with these options, and if no adverse environmental and/or human health impacts can be caused. (4) If a disposal well is unavailable and discharge to surface waters or land is necessary, a contractor, permit holder or midstream operator shall consider the following pollution prevention and control measures— (a) reduce the need for chemicals by minimizing the time that test water remains in the equipment or pipeline;

		(b) carefully select chemical additives in terms of dose concentration, toxicity, biodegradability, bioavailability, and bioaccumulation potential; (c) conduct toxicity testing as necessary using recognized test methodologies; (d) use the same water for multiple tests; and (e) monitor hydrostatic test water quality before use and discharge and treat to meet the limits established by the Authority and NEMA prior to its disposal. (5) If significant quantities of chemically treated hydrostatic test waters are required to be discharged to a surface water body, a contractor, permit holder or midstream operator shall conduct and document an assessment of alternatives.
Drilling waste.	136.	(1) A contractor shall employ techniques and practices that minimize the amount of waste produced in the course of drilling. (2) A contractor shall consider alternative options with respect to management of drilling waste that may include one or a combination of the following – (a) measures directed at minimizing volumes of drilling waste requiring disposal; (b) minimisation of environmental hazards related to residual chemical additives on discharged cuttings by careful selection of the fluid system and water-based drilling fluids shall be selected whenever it is technically feasible; (c) careful selection of drilling fluid additives, taking into account their concentration, toxicity, bioavailability and bioaccumulation potential; (d) use of high-efficiency solids removal and treatment equipment to reduce and minimize the amount of residual fluid contained in drilled cuttings; (e) use of directional drilling techniques where technically feasible to avoid sensitive surface areas and to gain access to the reservoir from less sensitive surface areas; (f) injection of drilling waste into a dedicated disposal well; (g) injection into the annular space of a well; (h) storage in dedicated storage tanks or lined pits prior to treatment, recycling, and/or final treatment and disposal; (i) monitor and minimize the concentration of heavy metal impurities in barite stock used in the fluid formulation; (j) on-site or off-site biological or physical treatment to render drilling waste non-hazardous prior to final disposal using established methods approved by the Authority and NEMA, in which case, bioremediation and landfarming alternatives shall be assessed prior to adoption; and (k) recycling of spent fluids back to the vendors for treatment and re-use. (3) A contractor shall treat and dispose of all drilling waste in accordance with these Regulations, the Kenya Standards and best petroleum industry practices.

Radioactive sources.	137.	(1) A contractor, permit holder or midstream operator shall within twenty-four (24) hours notify the Authority and any other relevant government agency if it encounters radioactive materials in the process of its operations in accordance with Kenyan laws. (2) A contractor shall not abandon radioactive sources in a well without prior approval of the Authority in a case where radioactive sources cannot practicably be removed. (3) 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. (4) Where a radioactive source cannot practicably be removed, the well shall be abandoned in a manner that ensures safety to human health and the environment in accordance with all relevant laws, the Kenya Standards and best petroleum industry practices.
Produced sand.	138.	(1) A contractor shall treat and dispose of all produced sand in accordance with these Regulations, the Kenya Standards and best petroleum industry practices. (2) Produced sand shall be treated as oily waste and may be treated and disposed in accordance with these Regulations and other applicable Kenyan law. (3) If water is used to remove oil from produced sand, it shall be recovered and routed to an appropriate treatment and disposal system. (4) A contractor shall reduce the production of sand at source using effective downhole sand control measures.
Completion and well workover fluids.	139.	(1) A contractor shall treat and dispose of all completion and well workover fluids in accordance with these Regulations, the Kenya Standards and best petroleum industry practices. (2) Feasible disposal options for completion and well workover fluids shall be considered, including the following— (a) collection of fluids, where handled in closed systems, and shipment back to the original vendors for recycling; (b) injection into a disposal well, where available; (c) inclusion as part of the produced water waste stream for treatment and disposal; and (d) on-site or off-site biological or physical treatment at an approved facility in accordance with the waste management plan.
Naturally occurring radioactive materials.	140.	(1) Where NORM is present or NORM precipitation and/or accumulation conditions are known or expected to exist, a contractor, permit holder or midstream operator shall develop a NORM management plan to ensure appropriate handling and management procedures. (2) A contractor shall submit for approval to the Authority a NORM management plan, which shall be shared with the Authority, NEMA and Radiation Protection Board. (3) A NORM management plan shall include the following—

		(a) identification, characterisation and assessment of existing situations involving the generation of NORM in the past, present or future; (b) evaluation of NORM management options for both existing and future NORM waste and selection of the optimum option; and (c) implementation of the optimum option for each NORM stream. (4) A contractor shall treat and dispose of NORM, in accordance with these Regulations, the Kenya Standards and best petroleum industry practices. A contractor shall retain updated records related to the radiation exposure levels of equipment and the disposal of oil and gas NORM waste for a period of not less than ten (10) years.
Division 5 – Disposal Wells		
Disposal wells permit.	141.	A contractor shall not dispose of petroleum waste, brine, wastewater and other substances produced in association with the exploration and production of petroleum into a formation not productive of petroleum without prior obtainment of a permit from the Authority.
Application process of disposal well permit.	142.	(1) A contractor shall apply for a disposal well permit to the Authority in writing at least two (2) months before commencement of injection operations. (2) An application for a disposal well permit shall include— (a) an application form provided in the FIFTH SCHEDULE; and (b) information regarding the locations of any historical seismic events within a circular area of 160 square kilometres, centred around the proposed disposal well location. (3) A contractor upon submission of an application shall pay a permit fee prescribed by the Authority.
Additional information.	143.	Where conditions exist that may increase the risk that fluids will not be confined to the injection interval, the Authority may require a contractor to submit additional information to demonstrate that fluids will be properly contained.
Processing application for disposal well permit.	144.	(1) On receipt of an application for a disposal well permit, the Authority shall notify the applicant in writing within seven (7) days if— (a) a contractor has failed to pay the prescribed fee; or (b) there is an error or deficiency in the application. (c) If the applicant fails to rectify an error or deficiency within the required period, the Authority shall— (d) not process the application; and (e) give notice to the applicant of its inability to process the application. (2) On receipt of a compliant application for a disposal well permit, the Authority shall— (a) acknowledge receipt of the application and confirm that the application is complete; and (b) arrange for and carry out a public consultation to— (c) identify all relevant stakeholders whose participation is desirable or whose interests may be affected by upstream and midstream subject to the permit;

		(d) inform all identified stakeholders of the proposed procedure and schedule for the iteration of the permit application; (e) sufficiently communicate to identified stakeholders the scope of the permit application under consideration to enable effective participation; and (f) collect and facilitate feedback received from the stakeholders. (3) In conducting a public consultation under this regulation, the Authority shall adopt a procedure and schedule appropriate to ensure the contents of the permitting application and any proposed operations are fully considered by relevant stakeholders.
Issuance of disposal well permit	145.	(1) The Authority shall approve an application by issuing a disposal well permit if the Authority is satisfied that (a) the information provided in the permit application meets the requirements specified in the SIXTH SCHEDULE; and (b) a contractor has demonstrated that the formations are separated from freshwater formations by impervious beds which will give adequate protection to such freshwater formations. (2) The Authority shall acknowledge receipt of the application within one (1) week of receipt; and inform a contractor in writing of the decision of the Authority within two (2) months after the receipt of the application. (3) Where— (a) a contractor fails to pay the prescribed fee; or (b) there is an error or deficiency in the application. the Authority shall notify a contractor in writing within fourteen (14) days after the receipt of the application to rectify the situation. (4) If the applicant fails to rectify the deficiencies within the period specified in the notification provided in the preceding sub-regulation the Authority shall— (a) not process the application; and (b) give notice to the applicant of its inability to process the application. (5) The Authority shall reject an application if the proposed activities may result in the occurrence of any significant detrimental risk to the environment, private property, individuals or the public safety. (6) A disposal well permit shall be subject to such conditions as the Authority may specify. (7) A contractor is required to conduct operations related to disposal of petroleum waste, brine, wastewater and other substances produced related to operations in compliance with applicable Kenyan laws, standards, terms and conditions of the issued permit.
Duration and renewal of disposal well permit.	146.	(1) A disposal well permit shall be valid for the period specified in the permit and may be renewed. (2) An application for the renewal of disposal well permit shall be submitted to the Authority by a Contractor not later than thirty (30) days prior to its expiration.

Permit suspension, modification, cancellation.	147.	(1) A disposal well permit may be modified, suspended, or terminated by the Authority for just cause after notice and opportunity for hearing, if— (a) a material change of conditions occurs in the operation or completion of the disposal well, or there are material changes in the information originally furnished; (b) freshwater is likely to be polluted as a result of continued operation of the well; (c) there are substantial violations of the terms and provisions of the permit or of Authority rules; (d) the applicant has misrepresented any material facts during the permit issuance process; (e) injected fluids are escaping from the permitted disposal zone; (f) injection is likely to be or determined to be contributing to seismic activity; or (g) waste of oil, gas, or geothermal resources is occurring or is likely to occur as a result of the permitted operations.
Division 6- Emissions		
Emissions	148.	(1) During all upstream and midstream operations, the contractor, permit holder or midstream operator shall— (a) comply with all applicable Kenyan environmental regulations concerning environmental protection including pollution prevention, air emissions, air quality monitoring and reporting; and (b) take into account the need to provide robust, accurate means of preventing emissions and monitoring and controlling air quality.
Venting and/or flaring	149.	(1) A contractor sub-contractor, permit-holder or licensee shall not vent or flare natural gas in the course of the conduct of upstream petroleum operations except with the prior authorization of the Authority in consultation with the National Government agency responsible for environment and safety and any other National Government entity in accordance with these Regulations. (2) The prior consent under sub-regulation (1) shall not be required— (a) in the case of an emergency and where such venting or flaring is necessary to avert a disaster; and (b) for safety reasons, such as flaring in safety burner pilots to maintain positive pressure; (3) A contractor who contravenes, fails or neglects to comply with the requirement for this sub-division commits an offence and shall on conviction be liable to a fine of not less than one hundred million Kenya shillings or a jail term of not less than ten years or both
Flaring and/or venting approval application.	150.	(1) A contractor, permit holder or a midstream operator shall apply for a flaring and/or venting approval to the Authority in writing at least two (2) months before commencement of operations or of each calendar year. (2) An application for a flaring and/or venting approval shall include— (a) an application form provided in the SEVENTH SCHEDULE; (b) flaring and venting management plan which shall include matters outlined in SIXTEENTH SCHEDULE;

		(c) information detailing the contractor's operations, and the expected flare and/or vent volumes associated with such operations; (d) the amount and quality of oil or natural gas involved and the duration of the requested venting/flaring; (e) an analysis of all feasible alternatives for associated gas's use; (f) information supporting that the flare and/or vent volume requested is at a level that is technically and economically justified; and (g) any other documents that may be requested by the Authority. (3) The Authority shall issue an approval on a field basis, or where several fields tie-in into common facilities, the contractor may apply for a single, composite approval. Approval for midstream operators may include the entirety of their facilities. (4) A contractor, permit holder or a midstream operator, upon submission of an application, shall pay a fee prescribed by the Authority.
Processing of flaring and/or venting application.	151.	(1) On receipt of an application for flaring or venting, the Authority shall notify the applicant in writing within seven (7) days if— (a) a contractor, permit holder or midstream operator fails to pay the prescribed fee; or (b) there is an error or deficiency in the application. (2) If the applicant fails to rectify an error or deficiency within the required period, the Authority shall— (a) not process the application; and (b) give notice to the applicant of its inability to process the application. (3) The Authority shall inform a contractor, permit holder or midstream operator of its decision in writing within one (1) month after submission of a complete application.
Issuance of flaring and/or venting approval.	152.	(1) The Authority, in consultation with NEMA, shall approve an application for flaring and/or venting if the Authority is satisfied that— (a) the information provided in the permit application meets the requirements specified in the EIGHTH SCHEDULE; (b) flare and/or vent volume requested is at a level that is technically and economically justified; (c) flare and/or vent volume requested achieves the lowest level of flare/vent that is consistent with best petroleum industry practice; (d) all feasible alternative uses of the associated gas use have been evaluated; and (e) flaring/venting is necessary to safeguard the safety and health of persons in the contract area or to prevent damage to the property of any person. (2) An approval for flaring and/or venting issued by the Authority may be subject to such conditions as the Authority may specify. (3) A contractor, permit holder or a midstream operator shall conduct flaring and/or venting and related operations in compliance with all applicable Kenyan laws, standards, and any conditions of the issued approval.

Duration and renewal of flaring and/or venting approval.	153.	(1) A flaring and/or venting approval shall be valid for one (1) year and may be renewed as necessary, upon application by a contractor, permit holder or a midstream operator. (2) Renewals are subject to the procedures outlined in these Regulations applicable to initial applications.
Amendment of flaring and/or venting approval.	154.	(1) Where a contractor, permit holder or midstream operator wishes to make material changes to the conditions of an existing approval, a contractor, permit holder or midstream operator shall apply to the Authority for approval of the material changes in accordance with these regulations on flaring and/or venting approval. (2) Material changes may include, but are not limited to— (a) change of operator of the well or facility; and (b) an increase in volume of gas to be released.
Suspension, modification or cancellation of flaring and/or venting approval.	155.	(1) The Authority may modify, suspend, or terminate a flare and/or vent approval if— (a) a material change of conditions occurs in the operations of the approval holder, or there are material changes in the information originally furnished; (b) there are substantial violations of the terms and conditions of the approval or of Authority rules; or (c) the applicant has misrepresented any material facts during the application process. (2) Where the Authority proposes to modify, suspend, or cancel a flare and/or vent approval under this regulation, the Authority shall— (a) provide fourteen (14) days notice to the approval holder; (b) provide reasons for modification, suspension or cancellation; and (c) ensure that the approval holder has an opportunity to respond to the Authority's reasoning for taking the proposed action with respect to the approval.
Releases not readily measured.	156.	(1) Releases of gas that are not readily measured by devices routinely used in petroleum operation and that do not require a prior consent may include, but are not limited to, the following— (a) tank vapours from crude oil storage tanks, gas well condensate storage tanks, or saltwater storage tanks, including makeup gas for gas blanket maintenance; (b) fugitive emissions of gas; (c) amine treater, glycol dehydrator flash tank and/or reboiler emissions; (d) blow down gas from flow lines, gathering lines, meter runs, pressurized vessels, compressors, or other gas handling equipment for construction, maintenance or repair; (e) gas purged from compressor cylinders or other gas handling equipment for start-up; (f) gas released at a well site during drilling operations and prior to the completion date of the well, including gas produced during air or gas drilling operations or gas which shall be

		separated from drilling fluids using a mud-gas separator, or mud-degasser; or (g) gas released at a well site during initial completion, recompletion in another field, or work over operations in the same field, including but not limited to perforating, stimulating, deepening, cleanout, well maintenance or repair operations. (2) Notwithstanding the foregoing, the Authority may require the flaring of releases of gas not readily measured by devices routinely used in the operation of oil wells, gas wells, gas gathering systems, or gas plants if the Authority, in consultation with NEMA, determines that flaring is required for safety reasons.
Emergency and safety venting or flaring.	157.	(1) In the event of an emergency, failure, breakdown, or malfunction of any piece of equipment, a contractor, permit holder or a midstream operator shall send excess gas to an efficient flare system. (2) Emergency venting may be permitted under specific conditions where a flare gas system is not available or when flaring of the gas stream is not possible. A contractor, permit holder or midstream operator shall fully document justification for excluding a gas flaring system. (3) As soon as reasonably possible, after the release of gas commences, a contractor, permit holder or a midstream operator shall notify the Authority in writing. (4) The volume of gas that is released shall be measured or estimated in accordance with the methodology established by the Authority and shall be reported to the Authority. (5) A contractor, permit holder or a midstream operator shall take all necessary measures to avoid emergency venting for a period exceeding twenty-four (24) hours. (6) The Authority may issue an emergency approval and allow additional releases of gas for a period exceeding twenty-four (24) hours if the contractor, permit holder or midstream operator demonstrates the necessity for such release.
Division 7 – Greenhouse Gas and Fugitive Emissions		
GHG Emission Reduction	158.	(1) An operator shall minimise GHG emissions through energy efficiency, conservation, optimised flaring, and adoption of best available technologies. (2) Annual GHG inventory shall be prepared in accordance with national climate obligations.
Methane and Fugitive Emission Reduction	159.	(1) Methane emissions shall be controlled through detection, repair, and technological mitigation measures, consistent with the applicable Kenya Law and the best Petroleum Industry Practice. (2) Annual methane reduction targets shall be submitted to the Authority.

Fugitive emissions management program.	160.	(1) A contractor, permit holder or a midstream operator shall develop and document a fugitive emissions management program (FEMP) as outlined in the NINTH SCHEDULE and submit the FEMP to the Authority and NEMA. (2) The Authority may direct a contractor, permit holder or a midstream operator to carry out additional actions to manage fugitive emissions if the Authority determines that additional actions are necessary to mitigate potential risks to the environment or safety.
Fugitive emissions survey.	161.	(1) A contractor, permit holder or a midstream operator shall conduct fugitive emissions surveys at the frequency specified in the FEMP using methods and equipment in compliance with the Kenya Standards and best petroleum industry practices, except that such surveys shall not be required for facilities that are designed to vent all received and produced gas. (2) A contractor, permit holder or a midstream operator shall survey, at least, the following— (a) equipment components with hydrocarbon throughput; (b) hydrocarbon gas-driven pneumatic devices; (c) tank-top equipment, including thief hatches and gauge-board assemblies; (d) surface casing vents and the area around the wellbore; (e) equipment used to destroy vent gas, including burners, flare ignitors, pilots, and combustors; and (f) equipment used to conserve vent gas, including vapor recovery units and vent gas capture systems. (3) A contractor, permit holder or a midstream operator shall ensure that individuals conducting fugitive emission surveys are trained, qualified and certified to use fugitive emissions survey equipment. (4) A contractor, permit holder or a midstream operator shall ensure that all equipment used to detect or quantify fugitive emissions is operated, serviced, and calibrated to the manufacturer's recommendations. (5) The Authority may conduct its own fugitive emissions surveys independent of the FEMP, and on the basis of such surveys, direct contractors or midstream operators to undertake remedial work to address any identified deficiency.
Repairs.	162.	(1) A contractor, permit holder or midstream operator shall repair sources of fugitive emissions or take other action to eliminate fugitive emissions within twenty-four (24) hours of identification if fugitive emissions— (a) are causing off-premises odours; (b) are the result of a failed pilot or ignitor on a flare stack; or (c) are causing or have the potential to cause environmental, safety or health concerns. (2) A contractor, permit holder or midstream operator shall notify the Authority of all other sources of fugitive emissions not repaired within twenty-four (24) hours. (3) The Authority shall direct a contractor, permit holder or midstream operator to repair all other sources of fugitive emissions or take other actions to

		eliminate fugitive emissions within thirty (30) days unless postponement can be technically and economically justified.
Environmental Information Disclosure to Communities	163.	(1) A contractor, permit holder or midstream operator shall provide relevant environmental information to affected communities, including— (a) spill events; (b) planned flaring and venting; (c) environmental risks; and (d) emergency response procedures. (2) Disclosure shall be aligned with the applicable Kenyan law
Cumulative and Transboundary Environmental Impacts	164.	(1) Where multiple petroleum activities occur within the same region, a cumulative impact assessment shall be conducted by the contractor, permit holder or midstream operator, addressing combined effects on air quality, water resources, biodiversity, and communities.
PART VI: SAFETY REQUIREMENTS FOR TRANSPORTATION OF CRUDE OIL		
Division 1 – Crude oil Pipeline transportation safety		
Environmental Protection	165.	(1) The contractor, permit holder or midstream operator, shall ensure that the pipeline corridor is cleared, rehabilitated, and maintained to prevent soil erosion, landslides, and contamination of surface or groundwater. (2) The contractor, permit holder or midstream operator, shall maintain approved Oil Spill Contingency and Emergency Response Plans with trained personnel and pre-positioned equipment along the pipeline corridor. (3) Discharges (hydrotest water, pigging waste, condensate) shall be managed in compliance applicable environmental laws (4) The contractor, permit holder or midstream operator shall promptly remediate any spill or contaminated site under supervision of the Authority and relevant government agencies.
Division 2 – Crude Road Transportation Safety		
Vehicle Standards	166.	(1) The contractor, permit holder or midstream operator shall ensure that road tank vehicles transporting crude oil— (a) conform to standards approved by the Authority and NTSA; (b) are fitted with rollover protection, pressure/vacuum relief, bottom-loading systems, and anti-static bonding; (c) have functioning GPS tracking and telematics; and (d) display hazard placards and emergency contact numbers as per Kenya Standards. (2) The Authority and NTSA shall jointly inspect petroleum road tankers annually to verify compliance with these standards.
Operational Controls	167.	(1) The contractor, permit holder or midstream operator shall ensure the preparation and implementation of a Journey Management Plan (JMP) for every trip. (2) The Authority may suspend transportation activities where route safety, driver discipline, or vehicle condition presents an imminent hazard.
Division 4- Cross-Cutting Environmental Health and Safety Requirements		

Pollution Prevention and Spill Control during crude transportation.	168.	(1) Every Contractor shall develop and maintain a Spill Prevention, Control and Countermeasure Plan (SPCCP) for all modes of transport. (2) Any spill, leak or discharge of crude oil shall be reported to the Authority, NEMA, and relevant agencies within forty-eight (48) hours, and investigated within seven (7) days. (3) Contaminated materials and recovered oil shall be handled in accordance with the Oil Spill and Waste Management Guidelines issued jointly by the Authority and NEMA.
Community Health and Safety	169.	(1) The contractor, permit holder, or midstream operator shall— (a) conduct periodic community sensitization and public awareness programs along pipeline, road, and rail corridors on safety, right-of-way protection, emergency reporting and evacuation; (b) disseminate emergency contact numbers and establish grievance redress and compensation mechanisms under the Petroleum Act, 2019; and (c) involve local leaders, county disaster committees, and health officers in emergency preparedness planning. (2) The Authority, NTSA and County Governments shall collaborate in community safety drills, signage, and the demarcation of high-risk zones near transport corridors. (3) The Contractor shall ensure medical surveillance for workers routinely exposed to petroleum vapours or H₂S and provide immediate medical assistance in the event of exposure or injury. (4) Authority, in collaboration with DOSHS, shall monitor occupational health conditions, noise, and air quality at loading facilities and maintenance depots.

PART VII – EMERGENCY PREPAREDNESS AND RESPONSE

General requirement.	170.	(1) A contractor, permit holder or midstream operator shall formulate emergency procedures for the facilities they operate, which shall allow an effective response to an emergency. (2) Emergency procedures shall include the following matters— (a) evacuation procedures; (b) procedures for notifying emergency service organizations at the earliest opportunity; (c) first aid, medical treatment and assistance; (d) procedures for effective communication between the person authorized by a contractor, permit holder or midstream operator to coordinate the emergency response and all persons at the facility; (e) a plan for drills for practising emergency procedures and, including the frequency of drills; and (f) information, training and instruction to employees in relation to implementing the emergency procedures.
----------------------	------	--

Emergency preparedness and response procedures.	171.	(1) A contractor, permit holder or a midstream operator shall develop, implement and maintain a comprehensive emergency preparedness and response plan and procedures for each facility that provides an adequate response to accidents and hazard situations during upstream and midstream. (2) A contractor, permit holder or a midstream operator shall develop the emergency preparedness and response plan based on the results from risk assessment. (3) The emergency preparedness and response plans and procedures shall— (a) adopt measures intended to prevent or minimise the harmful effects of incidents and accidents and recover the environment; (b) be coordinated with any national emergency response system; and (c) provide for testing of emergency procedures, including outlining the required frequency of testing. (4) The Authority shall— (a) require that the emergency response activities be coordinated in conjunction with National and County in its geographical region; (b) assist cooperation with other contractors; (c) take measures to obtain any necessary additional resources; (d) specify the required functions of the emergency response equipment; and (e) where justified, require a contractor, permit holder or a midstream operator to place any additional safety apparatus at or near the installations. (5) A contractor, permit holder or a midstream operator shall notify the Authority, at least fifteen (15) days in advance, of plans for holding emergency response drills if: (a) the drills involve stoppage of operations for more than 24 hours; and/or (b) Involves other relevant government agencies. (6) A contractor, permit holder or a midstream operator shall— (a) keep a copy of the emergency preparedness and response plan at the facility; and (b) provide a copy of the emergency preparedness and response plan to the Authority and any other relevant stakeholders as the Authority may determine. (7) A contractor, permit holder or a midstream operator shall immediately implement the emergency response plan and procedures where— (a) a major accident occurs at a facility or during upstream and midstream; or (b) an incident occurs that could reasonably be expected to lead to a major accident.
---	------	--

		(8) A contractor, permit holder or a midstream operator shall notify the Authority and any other relevant stakeholders of the occurrence of an incident or accident.
Consultation with authorities.	172.	(1) In preparing an emergency response plan, a contractor, permit holder or midstream operator shall consult— (a) the Authority and relevant Government Agencies; and (b) the County Government where the facility is located, or activity is carried out. (2) A contractor, permit holder or midstream operator shall consider the recommendations made by the authorities listed above in the development of the emergency response plan.
Oil spill response plan	173.	(1) A contractor, permit holder or midstream operator shall ensure that, where a risk of a significant oil spill exists, the emergency procedures shall include a plan with respect to oil spill preparedness and response. (2) An oil spill preparedness and response shall be consistent with any applicable national policy on oil spill preparedness and response, all applicable Kenyan laws and, at a minimum, shall include consideration of the following matters— (a) organizational roles and responsibilities with regard to administering and implementing the plan; (b) communications strategy and responsibilities; (c) strategic response coordination with authorities, and other relevant entities; (d) suitable scenario planning and risk assessment; (e) appropriate analysis of the location, surroundings and ecological context; (f) measures for spill detection, identification of the source of spills and spill control; (g) options for containment, removal and remediation of spills; (h) reporting and notification obligations; (i) arrangements for training with respect to the plan; (j) requirements to update the plan; and (k) any other matter required by the Authority,
Public awareness.	174.	(1) Prior to commencement of any upstream or midstream operations, the Authority shall undertake to communicate to affected members of the public in a language that they can easily understand— (a) the nature of any proposed activities; (b) any legal rights of affected members of the public with respect to the proposed activities; and (c) the means by which affected members of the public may liaise with the Authority before and during the proposed activities. (2) Where any significant change to the information communicated to the affected members of the public under this regulation., the Authority shall

		ensure such changes are promptly communicated to the affected members of the public. (3) Prior to installing any facility, a contractor, permit holder or midstream operator shall provide the following information to the local community where the facility will be located— (a) the name and location of the facility or petroleum activity; (b) the name, position and contact details of a person-in-charge with whom members of the local community may liaise; (c) a general description of the potential hazards posed by the operation of the facility; (d) the means by which the local community will be informed of an incident or accident occurring; and (e) the actions, as specified in the emergency plan, that members of the local community may take if an incident or accident occurs. (4) Operators shall implement community awareness and emergency preparedness programs for populations living adjacent to petroleum facilities, rights-of-way, and transport corridors. Such programs shall include: (a) distribution of information on facility hazards, emergency hotlines, and protective actions; (b) annual community meetings or outreach sessions in collaboration with county authorities; and (c) clear instructions for shelter-in-place, evacuation, and reporting of abnormal conditions (e.g., odours, leaks, smoke). (5) The Authority shall, on a semi-annual basis, engage the community on critical environmental, health and safety requirements for the upstream and midstream petroleum operations. (6) A contractor or permit holder or midstream operator during the course of petroleum operations shall ensure compliance with the provisions of the HIV and AIDS Prevention and Control Act Cap. 246A as well as the Sexual Offences Act Cap. 63A
--	--	---

PART VI –REPORTING AND RECORD-KEEPING

Division 1: Incident and accident reporting

General requirement.	175.	(1) A contractor, permit holder or a midstream operator shall ensure that, in the event of an incident or an accident, response measures are implemented to— (a) prevent injury or loss of life; (b) minimize pollution; (c) ensure that workers can be evacuated to safety quickly and efficiently; and (d) ensure that normal conditions can be restored as soon as practicable through— (i) any required repair to facilities or equipment; (ii) any necessary clean-up of pollution; (iii) any necessary restoration of the environment; and
----------------------	------	---

		(iv) any continued monitoring of conditions. (2) A contractor, permit holder or a midstream operator shall systematically investigate any incident or accident to find out its causes and report to the Authority and relevant Government agencies in accordance with these Regulations and applicable Kenyan law.
Initial notification and written reporting.	176.	(1) In the event of any incident or accident causing loss of life, personal injury, explosion, oil spill exceeding 200 litres, tanker rollover, uncontrolled release of crude oil, gas or other hazardous substance, rail derailment, event requiring evacuation of the public, fire or damage to the environment or property, a contractor, permit holder or a midstream operator shall report to the Authority and relevant Government agencies of the incident or accident as soon as practicable and in any case not later than 2 hours after – (i) the time of the occurrence of the incident or accident; or (ii) the time a contractor, permit holder or a midstream operator becomes aware of the incident or accident. (2) A notification under sub-regulation (1) may be made electronically using form in the TENTH SCHEDULE. (3) A contractor, permit holder or a midstream operator shall submit a written report within forty-eight hours of any incident or accident under this regulation, using the reporting template provided in ELEVEENTH SCHEDULE. (4) The Authority may, by notice in writing, require a contractor, permit holder or a midstream operator to submit one or more written reports of the reported incident or accident, if the initial report required in this regulation is deemed insufficient. (5) A full investigation report, including root-cause analysis and corrective actions, shall be submitted within thirty (30) days. (6) Failure to report in accordance with this Regulation shall constitute an offence.
Division 2: Record Keeping		
Health and Safety records	177.	(1) A contractor, permit holder or a midstream operator shall keep up-to-date records of – (a) safety performance and results; (b) compliance with health, hygiene and safety legislation; (c) medical examinations of workers; (d) the outcome of equipment testing and inspections and auditing of safety procedures; (e) staff training; (f) continuous improvement activities; and (g) any other record as the Authority may require. (2) A contractor, permit holder or midstream operator shall provide workers and contractors with relevant information for their performance and health.

Risk register	178.	(1) A contractor, permit holder or midstream operator must maintain and make readily available at the location of any facility or activity, a risk register summarising— (a) each risk identified in the safety case; (b) the risk assessment with respect to that risk; (c) the mitigation measures in place in relation to that risk with respect to the relevant facility or activity; and (d) schedule for monitoring and reviewing risks to ensure mitigation measures are effective.
Record of persons at a facility.	179.	(1) A contractor, permit holder or midstream operator shall at all times keep a record of every person present at a facility. (2) The record referred to under sub-regulation (1) shall— (a) specify particulars of the persons on the facility; and (b) be made available at all times for examination by an authorised representative of the Authority.
Testing.	180.	A contractor, permit holder or midstream operator shall maintain records of the details and results of all tests of facilities and equipment and shall ensure these are readily available for inspection.
Fire Drills	181.	A contractor, permit holder, or midstream operator shall ensure that a record is kept of fire response drills in sufficient detail to enable continuous improvement in fire response actions.
Pressure vessels.	182.	A contractor, permit holder or a midstream operator shall ensure that— (a) the results of the inspection and testing under this regulation; and (b) any actions taken as a consequence of the outcome of inspection and testing under this regulation, are sufficiently recorded and made available to the Authority on request.
Personal Protective Equipment	183.	(1) A contractor, permit holder or midstream operator shall keep a record of all personal protective equipment provided in the course of upstream and midstream. (2) The record required by this regulation shall contain— (a) a description of the equipment and the date of its acquisition by a contractor, permit holder or a midstream operator; (b) the date and result of each inspection and test of the equipment; (c) the date and nature of any maintenance work performed on the equipment since its acquisition by a contractor, permit holder or midstream operator; (d) the name of the competent person who performed the inspection, test, maintenance or repair of the equipment; and (e) any other relevant information. (3) Contractors or a midstream operator shall maintain records on training provided to workers on the use and maintenance of personal protective equipment, which shall include— (a) the date of training; (b) the recipients of the training;

		(c) the content of the training; and (d) any other relevant information. (4) A contractor, permit holder or midstream operator shall maintain the records required under this regulation for at least two (2) years after the equipment ceases to be in use.
Drilling waste from wells	184.	(1) A contractor shall document, retain in the well file and upon request make available to the Authority and/or NEMA the following information— (a) the location and identification of the well that generated the drilling waste; (b) the type of drilling mud system used; (c) the method used to store the drilling waste and a plot plan identifying the location of the storage system; (d) the volume of drilling waste generated, and the management method used; and (e) if different drilling waste types or phases were segregated, the information above shall be documented for the management of each segregated type or phase. (2) A contractor shall retain the information provided in sub-regulation (1) until the well site and any associated remote drilling waste storage or biodegradation site have successfully been reclaimed. (3) A contractor shall submit post-disposal information to the Authority and the Environmental Authority, identifying the drilling waste volumes generated, the management or disposal options used, and the disposal locations.
Directional Drilling waste	185.	(1) For drilling waste that has been generated from directional drilling activities associated with pipeline construction, a midstream operator shall document and retain until the pipeline has been abandoned, or, where a remote site was used to manage the drilling waste, until the remote site has been successfully reclaimed, the following information— (a) the identification of the pipeline that generated the drilling waste; (b) the geographical co-ordinates of the pipeline “from” and “to” location; (c) the plot plan showing the entry and exit pits of the directional drill, and a description of the method used to prevent migration of drilling mud/waste during drilling in the event that the pit does not consist of suitable clayey soils; (d) if a remote site was used, its geographical co-ordinates and specific use (e.g., storage, including type of storage system, and disposal, including type of disposal method), and a plot plan showing the storage and disposal areas; (e) the type of mud system used, and a list of all the additives, products, or chemicals used, including the quantities used, and documentation to verify the mud system was nontoxic; (f) the quantities of drilling waste generated, and the management method used; and

		(g) a copy of the post-disposal information submitted under sub-regulation (1). (2) Within twelve (12) months of each directional drilling activity associated with pipeline construction, a midstream operator shall submit to NEMA, post-disposal information identifying the drilling waste volumes generated, storage systems used, disposal methods used, and locations of disposals.
Flaring, Venting and fugitive emission	186.	(1) A contractor, permit holder or a midstream operator shall continuously and accurately measure the quantity of natural gas vented or flared using use measurement methods approved by the Authority. (2) A contractor, permit holder or a midstream operator shall maintain records of flaring and venting events which shall – (a) include the date, time, duration, gas source or type (e.g., sour inlet gas, acid gas), rates, and volumes for each incident; (b) include information on any complaints related to flaring, incineration, and venting and how these complaints were investigated and addressed; and (c) describe each non-routine flaring, incineration, and venting incident and any changes made to prevent future non-routine events from occurring. (3) A contractor, permit holder or a midstream operator shall ensure that flaring and venting records shall – (a) be retained from their creation throughout the life of the facility, for each facility where flaring and venting occurs; and (b) be made available to the Authority upon request. (4) Annual FEMP performance reports shall be submitted to the Authority and NEMA.
Methane reporting	187.	(1) Contractors and midstream operators shall submit an annual methane emissions report to the Authority and NEMA by the end of the first quarter of each year. (2) Methane emissions shall be quantified, monitored, verified and reported as per the relevant Kenyan or International Standards (3) A contractor, permit holder or a midstream operator shall include in the annual methane emissions report; the annual volume of vent gas in cubic metres and the corresponding mass of methane in kilograms emitted by the facility.
Methane records	188.	(1) A contractor, permit holder or a midstream operator shall retain records for the period of four (4) years and provide them to the Authority upon request. (2) The records referred to in sub-regulation (1) shall include the following – (a) calculations, by site, used to determine the volume and mass of methane from each of the sources below – (i) vent gas, (ii) instruments and pumps, (iii) compressor seals, (iv) glycol dehydrators, and (v) fugitive emissions.

		(b) for fugitive emissions— (i) the FEMP that is in effect, (ii) completed training programs and valid certifications for all individuals conducting fugitive emission surveys, and (iii) survey results. (c) annually updated inventory of pneumatic instruments and pumps that emit vent gas, including— (i) tracking identifier or serial number, (ii) location and facility ID, (iii) installation or modification date, (iv) make and model, and (v) device type.
Radiation Exposure	189.	A contractor, permit holder or midstream operator shall submit to the Authority, annual records related to radiation exposure levels and disposal of NORM waste from oil and gas operations
Accidents and Incidents.	190.	(1) A contractor, permit holder or a midstream operator shall with forty eight (48) hours report all incidents or accidents that occur on-site in the form and manner prescribed in the Thirteenth Schedule. — (2) By the end of the first quarter of each year a contractor, permit holder or a midstream operator shall submit a summary of details of the incidents or accidents recorded under this regulation for the previous year. (3) A contractor, permit holder or a midstream operator shall maintain records under sub-regulation (1) for a minimum of ten (10) years and make them available to the Authority on request.
Workplace Injuries and Accidents	191.	The obligations, benefits and rights in relation to workplace injuries shall be subject to the provisions of the Work Injuries and Benefit Act, 2007.
Incident or accident investigation.	192.	(1) Upon receipt of an oral or written, accident report, the Authority may appoint a responsible officer or officers to hold an inquiry into the cause of the incident or accident. (2) The officer conducting an inquiry may— (a) give notice to any person to appear before him or her at a hearing to give evidence and to produce such documents referred to in the notice; (b) call for the production of relevant books, documents and records for purposes of the inquiry; (c) conduct onsite inspections in accordance with the provisions of the Regulations; (d) question any relevant person or witness; (e) require any such person or witness to sign a declaration of the truth of the matter on which he or she is so questioned; and (f) exercise other powers as may be necessary for purposes of the inquiry. (3) An officer conducting an inquiry under this regulation may, subject to confidentiality requirements, if deemed appropriate, open the inquiry to the

		public and conduct the inquiry in a manner and under conditions he or she considers fit for ascertaining the cause and circumstances of the incident or accident. (4) Upon conclusion of the inquiry, the officer(s) shall develop a draft report summarizing — (a) relevant facts on the incident or accident; (b) the cause(s) or likely cause(s) of the incident or accident; (c) the adequacy of prevention, mitigation and remedial measures applied with respect to the incident or accident; and (d) any other matter as the officer(s) may deem fit. (5) The officer(s) shall submit the draft report to a contractor, permit holder or a midstream operator who may submit any comments or observations within thirty (30) days. (6) Within thirty (30) days from receiving comments and observations from a contractor, permit holder or a midstream operator, the officer(s) shall submit a final report to the Authority and send a copy to a contractor, permit holder or a midstream operator.
PART VIII – INSPECTIONS, CONTROL AND ENFORCEMENT		
General inspection and audit rights.	193.	(1) The Authority or its designated agents shall be responsible for carrying out safety, health and environmental inspections or audits of all activities related to upstream and midstream petroleum operations. (2) The Authority, or an inspector authorized by the Authority in writing, may at all reasonable times inspect any upstream and midstream petroleum operations, and any records of a contractor, permit holder or a midstream operator relating thereto, with the goal of monitoring compliance with the requirements established in these Regulations. (3) A contractor, permit holder or a midstream operator shall assist the facilitation of inspections and provide, where available, facilities similar to those applicable to its own staff or contracted persons for transport to the upstream and midstream, subsistence and accommodation and pay all reasonable expenses directly connected with the inspection.
Power of inspectors.	194.	(1) The Cabinet Secretary shall, by notice in the Gazette, appoint duly qualified persons, to be inspectors of the Authority. (2) The Authority or an inspector may at all reasonable times and upon at least a twenty-four (24) hours' notice to a contractor, permit holder or a midstream operator or a subcontractor, enter into any part of the licence area or any other location, premises, structure or business place occupied by a contractor, permit holder or a midstream operator or a subcontractor — (a) to examine or investigate anything which a contractor, permit holder or a midstream operator or a person contracted by the foregoing is authorised by the Act and these Regulations to perform, install, construct or take possession of; (b) to inspect and make abstracts or copies of any logs, records, maps, accounts or other documents which a contractor, permit holder or a

		midstream operator or a person contracted by the foregoing is required to make or keep in accordance with the Act and these Regulations; (c) to carry out any other authorised function under the Act and these Regulations. (d) require the production of, inspect, examine and copy licences, registers, records and other documents relating to these Regulations; (e) access documents for examination or copy or otherwise reproduce and shall issue a certificate of seizure as specified in the TWELFTH SCHEDULE to the person from whom they were taken and return them on completion; (f) take samples of any articles and substances to which these Regulations relate and submit such samples for test and analysis; (g) conduct tests or take measurements; (h) require that anything be operated, used or set in motion, under conditions specified by the inspector; and (i) use any machine, structure, material or equipment in the place the inspector is inspecting in order to carry out the inspection. (j) seize, seal, or render inoperative any equipment or substance which poses an immediate danger to human health, safety, or the environment; (k) conduct interviews with employees, contractors, or managers on site; (3) Notwithstanding sub regulation (1) an inspector may at any time and without notice enter an area which is subject of a licence and inspect the operation and facility of a contractor, permit holder or a midstream operator or a person contracted by the foregoing without notice for the purpose of ascertaining that the provisions of these Regulations or any other applicable Kenyan law are being complied with. (4) An inspector shall identify himself or herself upon arrival at the licence area, a facility or any other location, premises, structure or business place occupied by a contractor, permit holder or a midstream operator or a subcontractor. (5) An inspector shall not, in exercising his or her powers under this regulation, unreasonably interfere with or delay the operations of a contractor, permit holder or a midstream operator or a subcontractor. (6) An inspector may make any investigation necessary to determine whether or not the provisions of the Act and these Regulations are being complied with. (7) Where an inspector finds any plant or facility in a dangerous condition or any practice or method of work in connection with any licensed petroleum activity carried out in a dangerous manner, or is not in accordance with the Act, these Regulations, the Kenya Standards or is contrary to best petroleum industry practices, the inspector may give the person-in-charge notice in writing to repair, replace and/or remedy that operation, practice or method of work. (8) If the contractor, a midstream operator or person to whom an enforcement order is directed fails to comply with the enforcement order, the Authority may apply to the Tribunal for an order requiring compliance with the enforcement order.
--	--	--

		(9) Any equipment, material, or record seized under this Regulation shall be handled, stored, and returned in accordance with procedures prescribed by the Authority. (10) A person who obstructs, hinders, or knowingly misleads an inspector in the lawful performance of duties under this Regulation commits an offence.
Enforcement orders.	195.	With the written approval of the Authority, an inspector may issue enforcement orders— (a) requiring facility operators to cease activities polluting or likely to pollute the environment in violation of the provisions of these Regulations; (b) requiring facility operators to implement any remedial measures to restore the environment within such reasonable time as determined by the Authority; (c) ordering the closure of facilities polluting or likely to pollute the environment in violation of the provisions of these Regulations; (d) requiring the installation of any equipment on any land, premise, or vehicle for purposes of monitoring compliance with the provisions of these Regulations, upon giving the owner or occupier of the land three (3) months' written notice; and (e) revoking permits issued by the Authority in accordance with these Regulations.
Amendment and cancellation of enforcement orders.	196.	(1) With the written approval of the Authority, an officer authorized to conduct an inspection may— (a) amend the terms or conditions of an enforcement order; or (b) lift or cancel an enforcement order. (2) Where an enforcement order is amended by addressing it to additional persons, a copy of the order shall be served on any person whose name was added to it, and the same person to whom the original order was issued.
Failure to comply with enforcement orders.	197.	(1) If the contractor, a midstream operator, or person to whom an enforcement order is directed fails to comply with the enforcement order, the Authority may take reasonable action it considers necessary to carry out the terms of the enforcement order. (2) Costs incurred by the Authority under this regulation are recoverable by the Government in an action against the contractor, a midstream operator or person to whom the enforcement order was directed, or by order of the Cabinet Secretary directing any company or individual to which the enforcement order relates to pay to the Authority an amount not exceeding the amount owing in respect of the costs. (3) Costs under this regulation may include— (a) any costs incurred in investigating and responding to any matter to which an enforcement order relates; or (b) costs related to environmental assessment, remediation and compensation to affected persons.
Jointly and severally liable	198.	Where an enforcement order is issued to more than one person, all persons named in the order shall be jointly and severally responsible for carrying out the terms of

		the order and shall be jointly and individually severally liable for payment of the costs of doing so, including any costs incurred by the Authority under the preceding section.
Seizure.	199.	(1) During an inspection, an inspector may seize physical, digital or documentary evidence without the requisite search authority or warrant, if the inspector has reasonable grounds to believe that— (a) there has been an offence committed under these Regulations; and (b) that the item seized provides evidence as to the commission of an offence. (2) Where an item is seized, the inspector shall notify the contractor, midstream operator or other relevant person as to the reason for the seizure and provide a certificate of seizure outlining the information in Fourteenth Schedule. (3) The Authority shall be responsible for maintaining the condition of seized items. (4) Within twenty-four (24) hours from the seizure of any item under this Regulation, the Authority will submit a report to the Tribunal, which will validate or reject the necessity to retain the seized item. (5) If the Tribunal does not issue a decision within seventy two (72) hours from receiving the Authority's petition, the seized item shall be returned to the contractor, a midstream operator or other relevant person who is entitled to possession of it. (6) Where a contractor, a midstream operator or person is convicted of an offence under these Regulations, and anything relating to the conviction that was seized under this Part is still detained, the item shall, on the expiration of the time for taking an appeal from the conviction or on the conclusion of the proceedings, as the case may be— (a) forfeited to the Government, if the court so directs; or (b) be restored to the contractor, a midstream operator or person from whom it was seized or to any other company or individual who is entitled to possession of it, subject to any terms and conditions imposed by the court.
PART X – MISCELLANEOUS		
Offences and Penalties	200.	Any person who— (a) contravenes any provision of these Regulations; and (b) fails to comply with any direction given under these Regulations commits an offence and is liable on conviction to a fine or imprisonment as determined by the Act and the THIRTEENTH SCHEDULE
Register of permits and approvals.	201.	(1) The Authority shall keep a register of all permits and approvals issued under these Regulations which shall individually record their— (a) terms and conditions; (b) amendments; (c) duplicates; (d) suspensions or revocations; and

		(e) accompanying fees paid to the Authority. (2) Any person may, during the Authority's working hours, inspect the register subject to paying a fee. (3) The fee under sub-regulation (2) does not apply to members of the Kenya Police Service, on-duty public officers, members of the National Assembly, the Authority's employees and persons authorised by the Authority.
Grievance Redress	202.	(1) A contractor and permit holder shall maintain a functional grievance-handling mechanism accessible to all community members. (2) Where, a contractor, permit holder or other such person fail to resolve matters with respect to the grievance handling mechanism, such aggrieved person may make a complaint to the Authority in writing in respect of any matter provided for under these regulations. (3) The Authority shall acknowledge the receipt of the complaint in writing within five (5) days and attend to the complaint within thirty (30) days. (4) 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.
Information and reporting	203.	(1) The Authority shall publish summaries of environment, health and safety monitoring reports on annual basis through website or public notices. (2) In accordance with the Act, the contractor shall; (a) disclose to the affected communities information on potential health and safety risks and mitigation measures; (b)) maintain a functional grievance-handling mechanism accessible to all community members; and (c) consult communities on proposed social-investment and corporate-responsibility projects. (3) The Authority shall review the adequacy and functionality of community grievance mechanisms during compliance audits. (4) Operators shall publicly disclose non-confidential summaries of: (a) approved Safety Cases; (b) Emergency Preparedness and Response Plans; and (c) annual environmental performance reports, including emissions and spills. (5) Disclosure shall be made through the operator's website, public notices, or county information centres (6) The Authority shall maintain a public registry of approved Safety Cases, emergency plans, and sustainability reports, accessible to stakeholders.

FIRST SCHEDULE
Regulations 8
MINIMUM CONTENTS OF A SAFETY CASE

(To be prepared by the contractor, permit holder, upstream or midstream operator and submitted to the Authority)
At a minimum, a Safety Case shall contain the following:

1. Executive Summary - Brief description of the facility or operation and its location, summary of major accident hazards and key risk control measures; Summary statement that risks to workers, communities and the environment have been reduced to ALARP and confirmation of compliance with the Act, relevant Regulations and applicable Kenyan laws.
2. Introduction, Scope and Regulatory Context - Purpose and scope of the Safety Case, lifecycle phases covered (design, construction, drilling, production, maintenance, SIMOPS, suspension, cold-stacking, operations, decommissioning, abandonment); Description of petroleum operations covered (upstream, midstream, loading/offloading, transport interfaces; Applicable legal and regulatory framework, including the Petroleum

Act Cap. 308 and Energy Act, Cap. 314, environmental, occupational safety and county legislation; Interfaces with other regulators consistent with international multi-regulator safety case practice.

3. Facility and Operations Description - Facility location, coordinates, site layout, surrounding land use and proximity to communities or sensitive environments; Process and utility description (PFDs, P&IDs, pressure and temperature ranges, inventories, operating envelopes; Major equipment and systems (processing trains, storage tanks, pipelines, loading gantries, marine terminals, utilities, control rooms; Operating modes: normal operations, start-up, shutdown, maintenance, abnormal conditions and SIMOPS; Interfaces with other facilities, pipelines, road and rail loading areas, marine operations, third-party infrastructure.
4. Risk Assessment Methodology - Description of the risk assessment approach (qualitative, semi-quantitative, quantitative/QRA) and justification for its use; Hazard identification methods (HAZID, HAZOP, Bow-Tie Analysis, What-if, checklists; Modelling tools used (e.g. dispersion, fire and explosion modelling) and key assumptions; Risk criteria and risk matrix, consistent with recognised international petroleum industry practice; Reference to the separate Risk Assessment Schedule (content structure) required under these Regulations.
5. Major Hazard Identification - Systematic identification of all relevant major accident hazards and major environmental incident hazards, including: (a) loss of containment from process equipment, storage tanks, pipelines and wells; (b) well control events (kick, blowout, underground blowout); (c) fires and explosions (jet fire, pool fire, flash fire, vapour cloud explosion); (d) toxic releases (including H₂S and other harmful substances); (e) structural failures, dropped objects and lifting incidents; (f) marine, road and rail interface hazards; (g) natural hazards (flooding, earthquakes, lightning, extreme weather); and (h) security and malicious acts where relevant. A Hazard Register summarising hazards, causes, potential consequences, existing controls and risk ranking. Risk Analysis and Evaluation - Analysis of likelihood and consequence for each major hazard, including escalation and domino effects; Identification and detailed description of Major Accident Hazard (MAH) scenarios with potential for multiple fatalities, serious environmental damage or major community impact; Use of appropriate models and data (e.g. QRA, consequence modelling) to quantify individual and societal risk where required; Evaluation of risks against defined risk tolerability criteria (intolerable, ALARP, broadly acceptable); Demonstration that risks to workers, communities, the environment and critical infrastructure have been reduced to ALARP, including cost-benefit reasoning where applicable and comparison with recognised international petroleum industry benchmarks.
6. Community and Environmental Protection - Identification of off-site receptors, including neighbouring communities, public roads, markets, schools, hospitals, water bodies, fisheries, grazing lands and critical public infrastructure; Assessment of off-site consequences of MAH scenarios (thermal radiation, blast overpressure, toxic dispersion, spills, contamination) on public and community safety; Assessment of environmental risks, including potential impacts on soil, groundwater, surface water, coastal/marine environments, air quality, biodiversity and protected areas; Identification of vulnerable populations and sensitive receptors and how their protection is assured; Description of community engagement arrangements, including awareness-raising, public communication, and the grievance redress mechanism (GRM); Outline of post-incident environmental remediation and long-term monitoring arrangements.
7. Safety Zones - Definition and justification of buffer zones between the facility and communities, public areas or sensitive environments, with reference to risk assessment results and relevant standards; Definition and calculation of safety distances between hazardous equipment, storage, ignition sources, occupied buildings and public areas, supported by consequence and dispersion modelling; Description of proposed safety zones or exclusion zones (onshore and offshore where applicable), including: (a) boundaries and radii; (b) categories of persons and activities permitted or prohibited inside the zone; (c) access control and signage; and (d) monitoring and enforcement measures; Demonstration that buffer zones, safety distances and safety zones are adequate to protect workers, the public and the environment in line with international best practice and planning laws; Description of coordination with County Governments and other authorities on land-use planning, settlement control and encroachment management).
8. Risk Control Measures, Safety-Critical Elements and Performance Standards - Identification of preventive and mitigative risk control measures for each major hazard, including inherent safety, engineering controls, procedural controls and emergency measures; Identification of Safety-Critical Elements (SCEs) and a description of their role in preventing or mitigating MAHs; Performance standards for each SCE, including functionality, reliability, availability, survivability and response time; Overview of the verification scheme for SCEs (independent verification, inspection, testing, integrity management), consistent with leading safety-case

jurisdictions; Description of measures for ageing and life-extension management for wells, pipelines, tanks, structures and critical systems).

9. Safety Management System (SMS) - Governance and organisational structure, including the most senior accountable person in Kenya; Competence, training and fitness-for-work arrangements for staff and contractors; Contractor and interface management, including SIMOPS coordination with third parties (marine, road, rail, other operators); Management of Change (MOC) process for technical, operational, organisational and regulatory changes; Permit-to-Work (PTW) system for high-risk tasks such as hot work, confined space entry, work at height and live electrical work; Procedures for incident reporting, investigation, learning and continuous improvement; Compliance monitoring, audits, inspections and corrective action tracking; Stop-work authority and culture of safe intervention.
10. Emergency Preparedness and Response - Identification of credible emergency scenarios, including major fires, explosions, toxic releases, spills, structural failures, well control incidents, marine collisions and security events; Description of emergency response organisation, roles and responsibilities, including command structure and on-scene coordination; Emergency facilities and resources: firewater and foam systems, hydrants, deluge, alarms, communication systems, SAR capability, first-aid and medical arrangements; Evacuation, escape and rescue arrangements: muster points, escape routes, lifeboats/rafts (where relevant), emergency transport; Notification procedures for Authority and other competent authorities, Community and public communication mechanisms (sirens, public address, SMS, local radio, engagement with local leaders) and coordination with County emergency services; Spill preparedness and response, including shoreline protection for marine and inland water operations, in line with international oil spill contingency practices; Exercise and drill programme, including joint exercises with public authorities and neighbouring facilities.
11. Interface and SIMOPS Management Identification of simultaneous operations - (e.g., drilling while producing, tank cleaning during loading, construction during live operations, road/rail loading near process equipment); Risk assessment of SIMOPS and specific controls implemented to manage combined risks; Arrangements for coordination with third-party operators, marine traffic, rail operators, road hauliers and other adjacent facilities.
12. Decommissioning, Suspension, Cold-Stacking, Abandonment and Post-Closure Stewardship- Principles and high-level plan for safe suspension, cold-stacking, decommissioning and abandonment, consistent with international best practice; Well plugging and abandonment strategy and standards; Pipeline isolation, cleaning, purging and abandonment (in situ or removal); Tank and vessel degassing, cleaning and gas-freeing; Dismantling and removal of structures, including lifting, demolition and waste management; Environmental remediation of contaminated soils, sediments and water, and post-closure monitoring; Financial and technical capacity to fund and execute closure and post-closure obligations.
13. Documentation, Supporting Studies and Risk Registers- Major hazard and risk registers (including risk ranking and key controls); Bow-Tie diagrams or equivalent illustrations for key MAH scenarios; Fire and explosion modelling, dispersion and spill modelling reports; Structural, integrity and pipeline assessment reports; Environmental studies relevant to major hazard consequences and remediation; Cross-reference matrix linking Safety Case content to each requirement of these Regulations and Schedules.
14. Statement of Commitment and Sign-Off - A formal statement, signed in Kenya by the most senior accountable person for the facility or operation, confirming that: (a) the Safety Case is accurate and complete to the best of their knowledge; (b) the operator will implement and maintain the described controls, buffer zones, safety distances, safety zones and emergency arrangements; (c) risks to workers, neighbouring communities and the environment have been reduced to ALARP; and (d) the operator accepts ongoing responsibility for compliance with the Act and all applicable Kenyan laws and Regulations.

The safety case application shall be submitted with one signed original, one additional hard copy and two electronic copies. Electronic documents submitted shall be a single, text searchable, indexed Portable Document Format (PDF) file, which is clearly labelled and in A4 format.

SECOND SCHEDULE

Regulation 81, 90

SAFETY DATA SHEET

Information on SDS should be provided in the order provided below.

1. Identification

2. Hazard identification

3. Composition / information of ingredients

4. First-aid measures

5. Fire-fighting measures

6. Accidental release measures

7. Handling and storage

8. Exposure controls / personal protection

9. Physical and chemical properties

10. Stability and reactivity

11. Toxicological information

12. Ecological information

13. Disposal considerations

14. Transport information

15. Regulatory information
16. Other information.

THIRD SCHEDULE

Regulation 92

Hazardous Substances Report Form

Each notification to the Authority concerning all hazardous substances present or likely to be present at the facilities or to be used in operations shall employ the form outlined in this schedule.

NOTIFICATION OF HAZARDOUS SUBSTANCES PRESENT OR LIKELY TO BE PRESENT AT FACILITIES OR TO BE USED IN OPERATIONS

Date:

To: Energy and Petroleum Regulatory Authority

Contractor

.....

Address:

.....

Facility:

.....

	Substance trade name	Harmonized System (HS) code	Quantity of substance	Reason for use of substance	Quantity increased since previous report	Reason for increase
1						
2						
3						
4						
5						
6						...

(add rows as necessary)

Signed:

.....

Name:

.....

Position:

.....

On behalf of:

.....

(name of contractor)

FOURTH SCHEDULE

Regulation 119

WASTE MANIFEST FORM					
GENERATOR			TRANSPORTER		
Company Name:	Operator ID:		Company Name:		
Address:			Address:		
Postal Code:			Postal Code:		
City:	Country:		City:	Country:	
Source Site Location			Unit No.		
NEMA License Type Number:			Phone:		
Recipient:			Fax:		
Receiving Site Location:			Certification – I declare that I received wastes as offered by the Generator for delivery to the intended Receiver and that the information contained below is correct and complete. NAME (for the Transporter): Signature: Date:		
City:			RECIPIENT Company Name: Operator ID:		
County			Address:		
NAME (for the Generator):			Postal Code:		
Signature:			NAME (for the Recipient):		
(to be filled in triplicate)			Signature:		
Waste Description	Containers		Total Quantity	Unit No.	Waste Code
	No.	Type			
1.					
2.					
Comments:					
Discrepancies	NAME (Print):	Date:	Signature:		
Instructions: Manifests shall be composed of one original and three copies. The waste generator and the waste transporter shall fill in information in the original. After the generator hands over the waste to the transporter, the waste generator shall retain the first copy, and the waste transporter shall keep the original, and the remaining copies. The waste transporter shall, at all times avail the manifest form for inspection by NEMA upon request.					

When the waste transporter delivers the waste to the receiver, the waste transporter shall retain the second copy of the manifest and surrender the remaining copies and the original to the receiver. After verifying that there are no discrepancies between the cargo and the manifest, the receiver shall complete the original form, retain the third copy of the manifest, and give the original back to the generator. One copy shall be submitted to the Authority by the waste generator (contractor, permit holder or midstream operator) within 60 days of the commencement of the waste transfer.

FIFTH SCHEDULE

Regulation 142

DISPOSAL WELL PERMIT APPLICATION
Applicant name: (full corporate name)
Address: (full corporate address)
Petroleum Agreement name and number:
Phone:
Email address:
Type of permit requested:
Proposed start date:
Proposed finish date:
Methodology and equipment to be used:
Location of the well (GPS Coordinates)
Name and address of a contractor (where such person is not a contractor)
Contact details (name and contact details primary contact regarding the well) (full name, address, telephone number and email address)
Enclosed documents: (tick the boxes as appropriate) ☐ copy of registration documents ☐ complete well plan ☐ global positioning system (GPS) location of each well ☐ Environmental Impact Licence ☐ copy of fee payment receipt ☐ logs ☐ seismic information ☐ geologic cross-sections ☐ pressure front boundary calculations ☐ structure maps ☐ other supporting documents (specify, where applicable)
Declaration:

1. I hereby confirm that our company, its contractors and possess 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.
2. I hereby confirm that the information provided in this application is to my knowledge true and accurate.
3. I understand that it is an offence to give false information in an application for a disposal well permit.
4. I acknowledge that our company and our contractors and shall conduct drilling operations as approved by the Authority.
5. I acknowledge that our company and our contractors and shall not commence and conduct drilling operations and drill or convert a well prior to obtaining a disposal well permit from the Authority.

Date: (dd-mm-yyyy)

Authorised Applicant's representative (full name)

Authorised Signature: (Applicant's representative)

SIXTH SCHEDULE

Regulation 145

Disposal Well Permit
This Disposal Well permit is hereby issued under the Petroleum (Upstream and Midstream Environment, Safety and Health) Regulations, 2021 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 issuing date):
Expiry date: (dd-mm-yyyy of first expiry date)
Renewal: (dd-mm-yyyy of new expiry date in case of renewal)
Location of the well (GPS Coordinates)
Terms and conditions: 1. The applicant or a person conducting drilling or conversion 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 or conversion operations under a submitted well program except for during an emergency or reapproval by Authority; (c) comply with all applicable Kenyan laws and regulations; and (d) provide data, reports and information in compliance with the Petroleum Act (Cap. 308), Petroleum (Upstream and Midstream Environment, Safety and Health) Regulations, 2021, the individual Petroleum Agreement, and any other applicable Kenyan law; (e) submit the amended well drilling or conversion program, where an applicant intends to deviate from the approved program; (f) 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)
Signature: (Authority's representative)

SEVENTH SCHEDULE

Regulation 150

APPLICATION FOR VENTING AND/OR FLARING PERMIT

This application is hereby submitted under the Petroleum (Upstream and Midstream Environment, Safety and Health) Regulations, 2021, for the venting and/or flaring permit.

Applicant name: (full corporate name)

Petroleum Agreement/License name and number:

Address: (full corporate address)

Phone number:

Email address:

Type of permit requested:

Proposed start date of the permit:

Proposed end date of the permit:

Estimated volumes requested to be vented or flared:

Enclosed documents: (tick the boxes as appropriate)

- ☐ copy of registration documents
- ☐ sources of vented or flared gas
- ☐ information supporting need for venting or flaring (safety of venting and impossibility of flaring)
- ☐ methodology to measure or estimate vented or flared gas
- ☐ all relevant environmental licenses and reports as may be required by law;
- ☐ other supporting documents (specify)

Declaration:

1. I hereby confirm that the information provided in this application is to my knowledge true and accurate.
2. I understand that it is an offence to give false information in an application for a venting and/or flaring approval.
3. I acknowledge that our company shall conduct petroleum production operations as approved by the Authority and other state bodies of Kenya.
4. I acknowledge that our company shall not commence and conduct any unauthorized venting and/or flaring operations prior to obtaining an approval from the Authority

Date: (dd-mm-yyyy)

Authorised Applicant's representative (full name)

Authorised Signature: (Applicant's representative)

EIGHTH SCHEDULE

Regulation 152

VENTING/FLARING PERMIT
Approval no.: xxxx/yyyy
This venting/flaring permit is hereby issued under the Petroleum (Upstream and Midstream Environment, Safety and Health) Regulations, 2026 exclusively to the named applicant to conduct activities specified in this approval as follows:
Applicant name:
Address: (full corporate address)
Phone number:
Email address:
Petroleum Agreement/License name and number:
Commencement date: (dd-mm-yyyy):
Expiry date: (dd-mm-yyyy of first expiry date)
Estimated volumes approved to be vented and/or flared:
Terms and conditions: - The applicant or an authorised person hereby shall — - commence authorized activities within (__) months from issuance of this approval, unless when an unforeseen circumstance arises; - execute authorized activities under the application and not deviate from its approval except for during an emergency; - comply with all applicable Kenyan laws and regulations; and - provide all required data, reports and information in compliance with the Petroleum Act (Cap. 308), Petroleum (Upstream and Midstream Environment, Safety and Health) Regulations, 2021, individual Petroleum Agreement and any other applicable Kenyan law; - other conditions (specify here): - 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)
Signature: (Authority's representative)

NINTH SCHEDULE	
Regulation 160	
Fugitive Emissions Management Program	
Structure and content of the fugitive emissions management program (FEMP)	
1. The FEMP shall be designed to reduce fugitive emissions, contain the elements listed below, and be updated to reflect any changes to operations: 2. contact information of the individual accountable for the FEMP; 3. resources allocated to developing and implementing the FEMP, including which group within the company is responsible for maintaining and updating the FEMP and who will be conducting the surveys; 4. preventive maintenance practices to reduce or prevent fugitive emissions; 5. the procedures and plans that will be used to meet the required frequency of fugitive emissions surveys and to complete repairs, indicating any deviations from the prescribed frequency and provide justification; 6. techniques and equipment used for fugitive emissions surveys, including equipment make and model and any plans to use alternative technologies; 7. calibration methods and equipment maintenance practices for equipment used for fugitive emissions surveys; 8. training programs and certification completed by individuals conducting fugitive emissions surveys; 9. description of how individuals will be trained and how often they will be retrained or recertified; 10. internal procedures to track, manage, and verify the status of repairs; 11. data management practices and systems to ensure that survey results trigger required repairs and that the repairs are captured for annual reporting; and 12. provisions for continuous improvement of the FEMP, including how FEMP data will be used to evaluate program performance.	

TENTH SCHEDULE

INCIDENT AND ACCIDENT REPORTING TEMPLATE

Initial Report (to be submitted electronically)

A. Reporting Entity Details	
i) Name of Owner/Operator:	
Company Name:	
License Number:	
Environment Liability Policy:	
ii) Incident Reporter	
Name:	
Phone Number	
Mobile Number:	
Designation:	
iii) Contact Project proponent:	
Name:	
Phone Number:	
Mobile Number:	
Designation:	
B. Incident Details	
Incident Date (dd-mmm-yyyy)	
Incident time (hh:mm)	
Reporting Date (dd-mmm-yyyy)	
Reporting Time (hh:mm)	
Incident Reference Code	
Criteria Triggering the Reporting of the incident*	
A short and General Description of the incident	
Initial response measure undertaken	
Support Required from the Authority/ Government Agency	

* Criteria Triggering the Reporting of the incident

1. Loss of life or personal injury occasioned by entry into land for exploratory, survey, infrastructure development and maintenance activities;
2. Damage to property amounting to approximately Kes 1,000,000 and above, caused by any irregularity, trespass, or other wrongful proceedings occasioned by entry into land for exploratory, survey, infrastructure development and maintenance activities; or
3. Damage to property amounting to approximately Kes 1,000,000 and above, occasioned by the breaking of any petroleum infrastructure or by reason of any defect in such infrastructure

ELEVETH SCHEDULE

Regulation 152 & 165

Incident/accident Report: Reported in writing within 48 hours.

Petroleum (Upstream and Midstream Environment, Safety and Health) Regulations, 2026	
Notice of Accident or Incident	
Date:	
To:	The Director General Energy and Petroleum Regulatory Authority
A. Reporting Entity Details	
i. Name of Owner/Operator:	
Company Name:	
License Number:	
Environment Liability Policy:	
ii. Incident Reporter:	
Name:	
Phone Number	
Mobile Number:	
Designation:	
iii. Contact Project proponent:	
Name:	
Phone Number:	
Mobile Number:	
Designation:	
Contractor Name:	
Name of person filing notice:	
Contact details of person filing notice:	
B. Incident/accident Details	
Date:	Time:
Location:	
Nature of incident/accident	
Description of the incident/accident	
Measures taken to prevent the incident/accident	
Measures taken to mitigate the effects of the incident/accident	
Measures taken to secure the location from further incident/accident	

Injuries (if applicable)			
Injuries incurred?	(Y/N)	Total	
Details of Injuries			
Name of injured person			
Nature of injuries			
First aid application: Person giving first aid: Location: Measures applied (including time):			
Any additional details:			
(Repeat rows as necessary)			
Casualties (if applicable)			
Casualties occurred?	(Y/N)	Total	
Details of casualties			
Names of deceased person			
Nature of injuries sustained			
First aid application: Person giving first aid: Location: Measures applied (including time):			
Any additional details:			
(Repeat rows as necessary)			
Contact details			
Provide contact information and the current location (e.g. facility, treatment centre etc) for each injured person and current location for interview			
Witness details (if any)			
Provide: - name(s) of witnesses - contact details for witnesses - copies of any statement given by a witness in relation to the incident or accident			
(Repeat rows as necessary)			
Signed:			

Please attach any information that is relevant to the incident/accident or any other additional information the authority may require.

TWELFTH SCHEDULE

Regulation 194

Certificate of Seizure	
Inspector (1) Name:	Inspector (2) Name:
Contact details:	Contact details:
Inspection Details	
Date:	Time:
Location:	
Reason for inspection:	
Subject of seizure	
Item description (e.g. quantity type)	
Justification for seizure	
(Repeat rows as necessary for additional items)	
Location where item(s) to be taken	
Address	
Contact details	
Signed (Inspector 1):	Signed (Inspector 2):

THIRTEENTH SCHEDULE
Regulations 6, 7, 8, 9 ,87 and 143

OFFENCES, FINES AND PENALTIES

Regulation	Offence	Penalty
6,7,8	Contractor, permit holder or midstream operator failure to comply with a duty imposed to him	A fine of not more than Kshs. 500,000.00 or a term not exceeding 6 months or both
9, 87,	An employee who contravenes the provisions of these regulations	A fine of not more than Kshs. 50,000.00 or 3-months imprisonment or both
143	A contractor who contravenes, fails or neglects to comply with the requirement for this regulation	A fine of not less than Ksh. 100,000,000 or a jail term of not less than ten years or both
	A person who carries out the production, transportation, storage, treatment and clean up or disposal of wastes arising out of upstream petroleum operations without a license or fails to comply with the terms and conditions prescribed in the license issued commits an offence and is liable on conviction to	a fine of not less than Kenya Shillings twenty million shillings or imprisonment of not less than five years or both

FOURTEENTH SCHEDULE
Regulation 16, 91, 132 and 141
APPLICATION/PERMIT FEES

Regulation	Item	Fee in KES.
8	Safety Case (exploration, drilling, production, development, decommissioning)	5,000,000 per phase
92	Permit to use hazardous substances	2,000,000
133	Disposal well permit	3,000,000
142	Flaring and Venting	20,000,000

FIFTEENTH SCHEDULE

Regulation 16

RISK ASSESSMENT CONTENT AND OUTLINE

(To be submitted together as Annexure to the Safety Case)

A Risk Assessment submitted under these Regulations shall be structured, systematic, and proportionate to the complexity and hazard profile of the petroleum facility or operation. At a minimum, the Risk Assessment shall contain the following:

1. Introduction and Scope (Description of the facility, operation, or activity being assessed; Objectives, boundaries, and assumptions of the risk assessment; Description of methodology applied (qualitative, semi-quantitative, or quantitative; Identification of stakeholders, interfaces, and external dependencies).
2. Facility Description & Operating Conditions (Process description including inventories, pressures, temperatures, and flow regimes; Layout drawings, PFDs/P&IDs, equipment lists, hazardous area classification; Description of operating modes—normal, start-up, shutdown, maintenance, SIMOPS, abnormal conditions).
3. Hazard Identification (HAZID) i.e. Systematic identification of credible hazards, including: Loss of containment (liquid, gas, multiphase); Ignition sources (hot surfaces, electrical, static, mechanical); Pipeline rupture, tank collapse, vessel failure; Well control events, blowouts (for drilling/wells); Equipment failure, corrosion, erosion, fatigue; Marine, road, and rail interfaces; Dropped objects, lifting, working at heights; Natural hazards (flooding, earthquakes, lightning, extreme weather); Hazard register summarizing identified hazards.
4. Risk Analysis (Assessment of likelihood and consequences for each identified hazard; Use of recognized industry models (e.g., API 581, PHAST, HAZOP, Bow-Tie Analysis, QRA models); Analysis of escalation potential, domino effects, and interaction between hazards; Consideration of - Fire scenarios (jet fire, pool fire, flash fire), Explosion and blast overpressure, Toxic dispersions (H_2S , hydrocarbons), Environmental impacts (soil, groundwater, air, marine environment) and Community and public-safety impacts.
5. Risk Evaluation and Ranking (Application of risk matrices or quantitative criteria, Categorization of risks (intolerable, ALARP region, broadly acceptable) and Prioritization of risks requiring further control or design review.
6. Risk Control Measures (Preventive & Mitigative) (Identification of preventive controls including: Engineering barriers (SIS, PSV, ESD valves, double block and bleed), Integrity assurance systems, Fire and gas detection, Layout and segregation and Static control and earthing.
7. Identification of mitigative controls i.e. Fire protection systems (foam, deluge, hydrants); Emergency shutdown; Secondary containment, drainage, bunding; Emergency response arrangements and justification of risk reduction measures and residual risk.
8. ALARP Demonstration (Demonstration that risks have been reduced to a level that is As Low As Reasonably Practicable; Cost-benefit analysis for additional controls where applicable and comparison with industry benchmarks and good international practice).
9. Safety-Critical Elements (SCEs) and Performance Standards (Identification of all SCEs supporting major hazard risk control, Definition of performance standards i.e. Functionality, availability, reliability, survivability and response time) and linkage to verification scheme and maintenance strategy.
10. Human Factors and Organizational Risks (Assessment of operator error, fatigue, workload, competency gaps, control room ergonomics and alarm management and the permit-to-Work interfaces and SIMOPS).
11. Interface and SIMOPS Risk Assessment (Risks created by concurrent operations: Drilling + production, Construction + live operations, tank cleaning + loading, marine/road/rail operations and interaction with third parties and contractors).
12. Emergency Response and Evacuation Analysis (Assessment of escalation and emergency scenarios, Identification of safe muster points, escape routes, and evacuation systems and adequacy assessment of firewater, foam, SAR capacities).
13. Environmental Risk Assessment (Spill modelling, dispersion, runoff pathways; contaminant impacts on soil, groundwater, surface water, and ecosystems; Waste and emissions risk evaluation).
14. Risk Registers and Summary Tables (Consolidated risk register prioritizing high-risk scenarios; Bow-tie diagrams for major hazards; Summary of key risk drivers and residual risk levels).

15. Risk Reduction Plan (Actions to close risk gaps, implementation responsibilities and timelines and monitoring and continuous improvement strategies).
16. Conclusions (Summary of major findings, confirmation of ALARP and Linkages to the Safety Case and SMS).

SIXTEENTH SCHEDULE

Regulation 16, 150

GUIDANCE ON THE CONTENTS OF A FLARING AND VENTING MANAGEMENT PLAN

1. The Flaring and Venting Management Plan shall provide a projection of flaring and venting quantities and associated emissions over the lifetime of the installation with an associated plan of actions/projects/investments which the licensees plan to undertake to manage and minimize flaring and venting quantities and associated emissions. At a minimum, the documentation should contain:
 - (a) a brief overview of the field and associated main facilities;
 - (b) a detailed description of the plant commissioning philosophy and procedure, including gas export line commissioning should this be applicable, setting out steps to minimize flaring and venting;
 - (c) the commissioning schedule;
 - (d) a summary of the main flaring and venting assumptions and the greenhouse gas emission profiles of different commissioning strategies considered;
 - (e) flaring and/or venting forecasts – on a daily basis and total quantities
 - (f) sketches and figures should be as follows:
 - i. high level field layout
 - ii. process flow diagram
 - iii. gas compression, dehydration, gas export and fuel gas system
2. Throughout the oil and gas Lifecycle, the operator is required to provide weekly reports to the Authority detailing the following information relating to the previous week's activity:
 - (a) a short technical summary of the performance of the gas handling plant, highlighting any features which have affected or could affect the operation of the plant
 - (b) an update on commissioning activity progress and main works planned
 - (c) daily rates of oil production, gas production, gas export, gas used for fuel and of gas flare and/or vent
 - (d) cumulative plots of production and flaring and venting compared to consented quantities for that period and a plot of associated emissions
 - (e) gas compression plant uptime
3. Applications made for annual consents exercise should contain the following information:
 - (a) List of fields sending hydrocarbons to the terminal or similar site
 - (b) Actual flaring and venting quantities from the previous year to the current year (i.e. 12 months historic quantities)
 - (c) Expected flaring and venting quantity for the next year, broken down into the categories below
 - (d) Summary of measures being considered or implemented to reduce flaring or venting and associated emissions throughout lifecycle activities, supported by, amongst other things, improved energy efficiency, continued focus on maintenance, and a high level of production efficiency
4. Where flaring or venting is forecast to be in excess of consented levels, the Authority may request for and consider the following information:
 - (a) a robust remediation plan and investment plan, with approved budget and timing, to revert to original consent rates
 - (b) options for, or evidence of, curtailment of production to minimise flare and vent quantities and associated emissions – including scenarios that result in the temporary shut-in of production analysis on scenario emissions
 - (c) evidence that export outages have been planned for and all other options have been appropriately considered by the operator, such as but not limited to:
 - i. sheltering annual maintenance activities
 - ii. planning activities where periods of zero production are required (e.g. annual maintenance shut downs) to align with known downstream/export outages
 - iii. line pack
 - iv. evidence of Managing Director (or equivalent) awareness of the issue, and operator request for variation request

SEVENTEENTH SCHEDULE

Regulations 4, 68, 69

SAFETY ZONE AND SAFETY DISTANCES

No.	Petroleum Facility / Activity	Controlled Area Type	Minimum Distance / Zone Requirement	Protected Receptors (Who is being protected)
1	Offshore production installation, FPSO, fixed platform, subsea well, subsea manifold, offshore loading buoy	Safety Zone (Exclusion Zone)	500 m radius horizontally from the outermost point of the installation or subsea asset. Must be declared and enforced.	Public (marine users), fishers, third-party vessels, environment, the installation/workforce.
2	Onshore drilling rig/exploration or appraisal well during drilling, completion, workover, high-rate well test, or cleanup flaring	Safety zone (Community setback)	500 m to nearest dwelling, school, clinic, or continuously occupied community structure; 300 m to herders/livestock keepers settlement; 300 m to uncontrolled public roads.	Public, local communities, herders/livestock keepers, road users.
3	Onshore production well pad / multi-well pad in steady-state production (no high-rate test flare)	SAFETY ZONE (Community setback)	300 m to nearest dwelling/school/clinic/market; 200 m to routine grazing or stock watering point.	Public, livestock owners, community water users.
4	Central Processing Facility (CPF), Early Production Facility (EPF), associated separation, heaters, compression, produced water treatment, flare	SAFETY ZONE (Community setback); SAFETY ZONE (Site perimeter security); OPERATIONAL SAFETY DISTANCE (internal)	Safety Zone: 750 m to nearest dwelling/school/clinic/market; 500 m to herders/livestock keepers settlement or semi-permanent grazing settlement; 500 m to any public highway unless blast/fire walls & traffic control are in place. Safety Zone: fenced CPF perimeter + 100 m controlled strip where public access is restricted. Operational Safety Distance: internal no-go areas around flare, high-pressure equipment, and H ₂ S areas per Safety Case.	Public and community (Safety Zone); general public and unauthorised persons (Safety Zone); workers/contractors (Operational Safety Distance).
5	Permanent production flare stack at CPF / EPF (routine and emergency flaring)	SAFETY ZONE (Community setback); OPERATIONAL SAFETY DISTANCE (thermal/H ₂ S exclusion around flare)	Safety Zone: 750 m minimum to nearest dwelling/school/clinic/market. Operational Safety Distance: thermal/H ₂ S “red zone” around flare sized by radiation and dispersion modelling; no non-essential workers inside that zone.	Public (Safety Zone); workers (Operational Safety Distance).

6	Temporary well test flare (exploration/appraisal test)	SAFETY ZONE	1,000 m to nearest dwelling/school/clinic/market; 500 m to routine herders/livestock keepers settlement.	Public and communities.
7	Trunk crude oil pipeline / feeder pipeline under pressure (rural alignment)	SAFETY ZONE (Pipeline safety corridor); SAFETY ZONE (land-use control for public)	Baseline permanent right-of-way (ROW) / wayleave corridor not less than 30 m total width (≈15 m either side of pipeline centreline). This corridor is a Safety Zone where unauthorised excavation, settlement, kiosks, markets, tapping, parked fuel tankers, refuse burning or ignition sources are prohibited.	Public, environment, pipeline integrity, operator emergency access.
8	Block valve station, pigging station, pump station on trunk or feeder pipeline	SAFETY ZONE (Fenced and controlled station footprint + outer restricted strip); SAFETY ZONE (public setback)	Fenced installation plus a 100 m restricted-radius strip in which public access, informal vending, livestock enclosures, and uncontrolled parking are prohibited. Public Safety Zone: 300 m to nearest dwelling/school/clinic/market; 200 m to herders/livestock keepers settlement; 100 m to any public road not under access control.	Public, operator staff, emergency responders.
9	Crude oil storage tank farm / midstream export or storage depot (≥10,000 m ³ total working capacity)	SAFETY ZONE (public setback); SAFETY ZONE (secured perimeter + 100 m controlled strip); OPERATIONAL SAFETY DISTANCE (internal fire / ignition control areas)	Safety Zone for major depots: 1,000 m to nearest dwelling/school/clinic/market; 500 m to herders/livestock keepers settlement; 200 m to public road unless blast/fire walls and spill containment berms are in place. Safety Zone: fenced perimeter plus 100 m “no public access” strip around the facility. Operational Safety Distances: tank-to-tank spacing, ignition source control and loading bay exclusion per API 2610 / NFPA 30.	Public, communities, road users, depot workforce.
10	Truck loading gantry / rail loading rack for crude oil or associated petroleum products	SAFETY ZONE (active loading area); SAFETY ZONE (public setback);	Safety Zone: controlled, fenced loading bay with 100 m “no public access / no ignition source” radius around active loading points.	Public, drivers, loaders, inspectors, nearby vendors.

		OPERATIONAL SAFETY DISTANCE (ignition control)	Safety Zone: 300 m to nearest dwelling/market/informal vending; 200 m to any public road that is not access-controlled. Operational Safety Distance: exclusion during loading so that no non-essential workers are within spill/fire radius.	
11	Produced water injection well / water re-injection facility / produced water disposal well	SAFETY ZONE; OPERATIONAL SAFETY DISTANCE	Safety Zone: 200 m to nearest dwelling/school/clinic; 100 m to stock watering points or shallow community boreholes unless hydrogeology proves no impact; 100 m to seasonal watercourses unless secondary containment is provided. Operational Safety Distance: fenced pad and marked high-pressure injection header area, with only authorised staff allowed during injection work.	Public, groundwater users, livestock keepers, downstream surface water users, workers at injection site.
12	Hazardous / Integrated Waste Management Facility (IWMF) for petroleum waste: drilling mud treatment, oily cuttings, produced water treatment, NORM handling, oily waste landfill/incinerator	SAFETY ZONE; SAFETY ZONE (secured waste facility footprint); OPERATIONAL SAFETY DISTANCE (internal exclusion)	Safety Zone: 500 m to nearest dwelling/school/clinic/market; 300 m to herders/livestock keepers settlement; 200 m to community borehole/surface water abstraction; 100 m to seasonal watercourses unless berms, liners and leachate control in place. Safety Zone: fenced facility footprint with access control, signage and prohibition of public scavenging. Operational Safety Distance: demarcated internal "hazard area" for NORM, high-VOC waste and incinerator/fire risk.	Public health (odour, toxic exposure), groundwater, surface water, scavengers/informal recyclers, workers.
13	Temporary explosives magazine for seismic operations (blasting charges)	SAFETY ZONE; SAFETY ZONE	Safety Zone: 500 m to any dwelling/school/clinic/market/settlement; 200 m to any public road or track not under operator control. Safety Zone: fenced magazine area with 50 m clear radius "no unauthorised entry / no ignition source" around the magazine.	Public, livestock, passing traffic, seismic crew.

14	Internal hot work area (welding, grinding, cutting) within a live hydrocarbon facility (CPF, tank farm, loading gantry, pipeline tie-in)	OPERATIONAL SAFETY DISTANCE	Minimum 15 m exclusion radius around hot work unless gas-freed and barriers/blanketing are in place. No non-essential personnel or ignition-sensitive operations in that radius.	Workers / contractors in the facility.
15	High-pressure hydrotest / pressure integrity test of pipeline section, pressure vessel, well control stack	OPERATIONAL SAFETY DISTANCE	10 m barricaded exclusion radius minimum around the test item, and exclusion of all non-essential personnel from the "line of fire" of end caps, blinds, valves, temporary test spools.	Workers / contractors performing the test.
16	H ₂ S hazard areas (wellheads, separators, produced water handling, flare knockout drums)	OPERATIONAL SAFETY DISTANCE; SAFETY ZONE (to keep public out of toxic plume footprint if credible)	Internal: demarcated H ₂ S hazard area where only trained and equipped personnel with gas detection and escape packs are allowed. External/Public: keep public completely outside worst-case H ₂ S dispersion plume as modelled in the Safety Case; this distance is site-specific, but must be ≥ the other Safety Zones listed (e.g. 500 m for drilling, 750 m for CPF).	Workers (internal zone), public and nearby communities (external plume).
17	Onshore crude oil storage / export terminal truck or rail loading rack during active loading of crude oil or products	SAFETY ZONE (Active loading zone); OPERATIONAL SAFETY DISTANCE	100 m radius "no unauthorised public / no ignition source / no informal vending or boda staging" around active loading bays; plus 300 m Safety Zone to nearest dwelling/market, 200 m to uncontrolled public road.	Public, drivers, loaders, inspectors, emergency responders.
18	Community interface / haul roads / logistics yards linked to petroleum activities (pipeline construction camps, laydown yards, heavy trucking routes for crude or equipment)	SAFETY ZONE (traffic & nuisance); SAFETY ZONE (if declared for temporary works)	Distances are case-specific, but operator must show in the Safety Case that high-risk logistics areas (fuel storage, heavy lifting, hazardous waste staging) are physically separated from community areas such that pedestrian, boda and livestock traffic is not exposed to crush, fire, spill or toxic risk. For temporary explosive magazines, 500 m buffer	Public road users, local communities, livestock, informal traders/vendors.

			applies; for heavy fuel storage, align with 300 m–500 m buffer logic above.	
20	Permanent production flare stack (steady-state flaring at CPF / EPF)	SAFETY ZONE (community setback); OPERATIONAL SAFETY DISTANCE (onsite flare exclusion/red zone)	Safety Zone: ≥ 750 m to nearest dwelling / school / clinic / market. Internal Operational Safety Distance: establish a marked “flare red zone” around the flare base and expected ground-level radiant heat footprint; only authorised, trained personnel with appropriate PPE and H ₂ S awareness allowed inside.	Offsite public and communities (Safety Zone); onsite workers (Operational Safety Distance).
21	Emergency / upset flare stack or blowdown vent stack (used for rare emergency depressurisation, not routine)	SAFETY ZONE; OPERATIONAL SAFETY DISTANCE	Safety Zone: ≥ 500 m to nearest dwelling / school / clinic / market, unless dispersion/radiation modelling in the Safety Case shows a larger footprint is required (then use the larger number). Operational Safety Distance: internal “no unauthorised personnel” exclusion around the blowdown/vent discharge area during activation, including radiant heat and blast noise.	Public, workforce, and emergency responders.
22	Atmospheric venting points for routine non-combusted gas (e.g. produced gas vent, tank vapour vents, produced water degassing vents)	OPERATIONAL SAFETY DISTANCE (onsite toxic / hydrocarbon vapour exclusion); SAFETY ZONE (odour / toxic nuisance to public)	Internal Operational Safety Distance: clearly marked “vent hazard area” around any routine vent where hydrocarbon gas, VOCs, or H ₂ S could be released; only trained personnel with gas monitoring enter when venting is active. Minimum onsite exclusion radius should be defined in the Safety Case based on H ₂ S/VOC dispersion, but cannot be less than 10 m around the vent discharge point. Safety Zone to public: must ensure that the nearest dwelling / school / clinic / market is located outside the worst-case ground-level toxic concentration predicted in dispersion modelling; if	Workers onsite (acute inhalation); nearby communities (chronic or acute exposure).

			H ₂ S or toxic vapours are possible, this offsite distance must not be less than 300 m.	
23	Individual wellhead (including Christmas tree, flow control, ESD valves) in production status within a well pad	OPERATIONAL SAFETY DISTANCE (onsite controlled access)	A marked “wellhead safety radius” around each live wellhead where only authorised, trained and medically fit personnel may enter. As baseline: 5 m fully barricaded when live operations (opening well, changing valves, wireline/slickline) are in progress; 10 m exclusion for non-essential personnel during pressure operations or well intervention. This is inside the pad fence, not an offsite distance.	Workers and well service crews on the pad.
24	Multi-well production pad / clustered well pad (entire pad footprint, including header manifolds, infield flowlines, small flare/vent points)	SAFETY ZONE (community setback); SAFETY ZONE (fenced perimeter); OPERATIONAL SAFETY DISTANCE (internal no-go/ignition control areas)	Safety Zone: ≥ 300 m to nearest dwelling / school / clinic / market; ≥ 200 m to routine grazing or watering points for livestock. (These match production pad values and must be mapped and agreed in the Safety Case.) Safety Zone: fenced perimeter of the pad, clearly signed “Petroleum Safety Zone – Restricted Access” in English and Kiswahili. Internal Operational Safety Distance: heating/ignition sources (generators, heaters, temporary flares/vents) must have marked no-smoking / no unauthorised access areas sized by fire/H ₂ S modelling, normally ≥10–15 m radius.	Public, herders, livestock, workers.
25	Crude oil export jetty / offshore (or nearshore) marine loading terminal used to load crude to tankers for export; includes loading arms, loading hoses, PLEM (pipeline end manifold), mooring dolphins, export pipeline tie-in	SAFETY ZONE (marine/offshore exclusion zone); SAFETY ZONE (coastal community / shore facilities); OPERATIONAL SAFETY DISTANCE (active loading arm exclusion)	Marine/Offshore Safety Zone: a declared exclusion zone extending at least 500 m radius around the offshore loading berth, floating hose string, CALM buoy, PLEM, or ship-to-ship transfer point. Within this, only authorised export tanker, service/safety vessels may enter, moor, anchor or handle cargo.	Fishers, artisanal boat users, coastal communities, terminal workers, marine traffic, environment (sensitive marine/shoreline habitats).

			Coastal/Onshore Safety Zone: setback between onshore terminal/pump manifold and the nearest public beach access, fishing landing site, settlement, market, school or clinic. As baseline, ≥ 500 m, unless modelling of jet fire, pool fire, spill drift and vapour cloud dispersion shows a need for greater distance. Operational Safety Distance: during active loading, a 100 m “no unauthorised vessel / no public boating / no fishing gear deployment / no ignition source” radius around the active loading arm or hose connection point.	
26	Crude oil gathering lines and infield production flowlines (short segments from well pad to CPF/EPF)	SAFETY ZONE (linear restricted corridor along each line)	Minimum controlled corridor (wayleave) sufficient for inspection and emergency access, typically ≥ 5 m either side of pipeline centreline (≈ 10 m total). No informal settlement, livestock settlement fences, kiosks, uncontrolled excavation, or burning of waste directly above the line. Where H_2S -bearing crude or higher pressure is present, match the trunk pipeline standard and increase to ≥ 15 m either side (≈ 30 m total).	Communities, herders, infield workforce, environment (soil, groundwater).
27	Produced water / wastewater pipelines (reinjection lines, disposal water lines) and high-volume water transfer lines for waterflood / pressure maintenance	SAFETY ZONE (linear restricted corridor); SAFETY ZONE (water resource protection)	Establish and mark a controlled access strip along the reinjection/disposal water line sufficient for inspection and emergency repair. Baseline: ≥ 5 m either side of pipeline centreline (≈ 10 m total). Public water abstraction points, boreholes, and livestock watering points should not be located directly on top of, or within 10 m of, the pipeline centreline unless spill containment/rapid isolation measures and groundwater	Communities (drinking water users), livestock, soils, shallow aquifers, wetlands.

			protection are demonstrated in the Safety Case.	
28	Bulk raw water abstraction, storage and surge ponds used to support drilling/production (non-hydrocarbon water, but large stored volumes)	SAFETY ZONE (flood/safety for public); OPERATIONAL SAFETY DISTANCE (drowning/ingress control around ponds/tanks)	Safety Zone: demonstrate that any village, school, clinic, market or herders/livestock keepers overnight settlement is located outside the credible flood/inundation footprint if a lined raw water pond or elevated storage tank fails. As a baseline, ≥ 100 m horizontal setback from the high-water line of large open ponds to any public settlement. Operational Safety Distance: controlled fenced perimeter at least 10 m from pond/tank edge with "No unauthorised entry / Deep Water" signage to prevent drowning/vehicle rollover.	Public (especially children, herders), livestock, workforce.

EIGHTEENTH SCHEDULE

Regulations 125

ENVIRONMENTAL LIABILITY ASSESSMENT AND COST DETERMINATION FRAMEWORK

Schedule 117 prescribes the process, methodology, and documentation required for determining the minimum financial assurance (Environmental Liability Policy or equivalent instrument) applicable to petroleum operations.

1.0. PURPOSE OF THE ENVIRONMENTAL LIABILITY ASSESSMENT

The purpose of the Environmental Liability Assessment is to—

- (a)** identify all environmental, safety, health, and socio-economic risks associated with petroleum operations;
- (b)** quantify the costs of preventing, mitigating, responding to, remediating, and restoring environmental damage;
- (c)** determine the minimum financial assurance required in the form of an Environmental Liability Policy, deposit bond, bank guarantee, or equivalent;
- (d)** prevent duplication of financial instruments by recognising equivalent coverage under any other written law; and
- (e)** enable the Authority to review and approve the assessment prior to procurement of the policy.

2.0. RESPONSIBILITY FOR THE ASSESSMENT

(1) The Environmental Liability Assessment shall be undertaken by competent expert accredited by the relevant government agency, and who demonstrates technical capability in environmental valuation, pollution modelling, ecosystem restoration costing, petroleum risk assessment, and actuarial estimation.

(2) The expert shall conduct a site-specific and operation-specific assessment and prepare an Environmental Liability Assessment Report (ELAR), which shall be submitted to the Authority for review and approval.

3.0 CONTENT OF THE ENVIRONMENTAL LIABILITY ASSESSMENT REPORT (ELAR)

The ELAR shall include, at minimum:

3.1 Contractor / Permit Holder / Operator Information

- (i) Legal Name (ii) Trading Name (if different) (iii) Postal and Physical Address, (iv) Licence Number or Application Reference, (v) Contact Person (Name, Email, Phone), (vi) Type of Operation (Upstream / Midstream / Downstream), (vii) Facility location (coordinates, L.R. Number, operational block, pipeline segment, depot name, terminal name, any other)

3.2 Description of Operations

- (i) Nature and scale of operations, (ii) Inventory of petroleum products handled (volume, storage capacity), (iii) Equipment and infrastructure, (iv) Process description, (v) Transport routes (if applicable) (vi) any other.

3.3 Identification of Environmental, Safety & Health Hazards

The expert shall identify ALL risks including:

3.3.1. Environmental Risks, including- (i) spills, leaks, blowouts, pipeline ruptures, (ii) soil and groundwater contamination, (iii) surface water pollution, (iv) air emissions and explosions, (v) waste mismanagement, (vi) hazardous material releases, (vii) ecosystem disturbance and biodiversity loss

3.3.2. Safety Risks, including (i) fire and explosion hazards, (ii) toxic exposure, (iii) structural failures, (iv) marine or jetty incidents

3.3.3. Health Risks, including- (i) exposure to petroleum vapours, (ii) contamination of water sources, (iii) community exposure (iv) any other project related

3.3.4. Socio-Economic Risks, including (i) livelihood impacts, (iii) property damage, (iv) displacement, (v) impacts on cultural/heritage sites

4.0 COST ESTIMATION REQUIREMENTS

The expert shall assign a cost to each risk-related activity. Costs must include:

4.1 Reasonable Worst-Case Discharge (RWCD) modelling

(i) maximum feasible spill, (ii) volume (iii) affected area, (iv) dispersion pathways, (v) modelling outputs

4.2 Site-Specific Remediation Cost Estimates

The following must be costed: soil clean-up, groundwater remediation, surface water clean-up, waste recovery and disposal, ecosystem restoration, vegetation regrowth, habitat replacement, compensation of affected communities, environmental monitoring, laboratory testing, regulatory oversight and others project specific costs.

4.3 Costing of Preventive and Mitigative Actions

Emergency response, containment, fire suppression, spill recovery equipment, hazard control barriers and other project specific actions

4.4 Cost of post-closure

Term Monitoring including Soil sampling, groundwater sampling, vegetation recovery surveys, rehabilitation success audits and related project specific cost. Each activity shall have a unit cost, quantity, and total cost.

5.0 METHODOLOGY FOR DETERMINING LIABILITY COVERAGE

The expert shall use the following parameters:

5.1 Environmental Risk Index (ERI)

$ERI = Probability \times Severity$

Probability is based on historical performance, equipment reliability, operating conditions. Severity is based on potential harm to environment, safety, health, and socio-economic receptors.

5.2 Reasonable Worst Case Discharge (RWCD)

$RWCD = \text{Maximum product inventory} \times \text{Failure Release Factor}$

5.3 Sensitive Receptor Factor (SRF)

SRF scores (0.5–2.5) are assigned based on: Distance to watercourses, presence of protected ecosystems, community proximity, presence of critical infrastructure, ecological sensitivity and others

5.4 Remediation & Restoration Cost Factor (RRCF)

$RRCF = (\text{Estimated contaminated volume} \times \text{remediation cost per unit})$

5.5 Socio-Economic Impact Factor (SEIF)

$SEIF = (\text{Affected households} \times \text{compensation rate})$

5.6 Administrative & Regulatory Cost Factor (ARCF)

$ARCF = 5\% \times (ERI \times RWCD \times SRF)$

5.7 Operational Scale Factor (OSF)

$OSF = \ln (\text{Annual throughput} + 1)$

5.8 Liability Formula

$\text{Environmental Liability Coverage (ELC)} = (ERI \times RWCD \times SRF) + RRCF + SEIF + ARCF$

$\text{Final Coverage} = ELC \times OSF$

The output is the minimum required limit of the Environmental Liability Policy OR the equivalent financial assurance instrument.

6.0 SUBMISSION OF THE ELAR TO THE AUTHORITY

The operator shall submit the Assessment Report, modelling annexes, cost estimation tables, maps and GIS outputs, sensitive receptor inventory, risk matrix, expert accreditation documents and other project related as determined by the Authority. The Authority shall review completeness, verify costing and risk analysis, determine minimum coverage and issue a Financial Assurance Approval Notice. Only after receiving the approval of the Environmental Liability Assessment Report shall the operator procure the Environmental Liability Policy or equivalent.

NINETEENTH SCHEDULE

Regulations 124

PREScribed FORM OF ENVIRONMENTAL LIABILITY POLICY PACKAGE

This Schedule contains both the policy form and the expert assessment summary.

1. Contractor / Operator Information

- Name
- Postal & Physical Address
- Licence No. / Application Reference
- Contact Person
- Facility Name and GPS Coordinates
- Nature and Scale of Operations

2. Environmental Liability Assessment Summary

(To be completed by accredited expert)

- Name of Accredited Expert / Firm
- Accreditation Number (from relevant government agency)
- Scope of Assessment
- Methodology Applied
- RWCD Calculations
- Environmental & Safety Hazards Identified
- Sensitive Receptors Identified
- Summary of Remediation and Restoration Costs
- Total Estimated Environmental Liability
- Minimum Coverage Recommended

Signature of Expert _____

Date _____

3. Detailed Cost Breakdown

Include a table covering:

Activity / Impact	Unit	Quantity	Unit Cost	Total Cost
Soil remediation	m ³			
Groundwater remediation	site			
Ecosystem restoration	ha			
Community compensation	household			
Emergency response	item			
Monitoring/regulatory cost	sample/event			
Add other (Project related)				

Total Estimated Liability (USD/KES): _____

4. Existing or Equivalent Insurance / Bond Details

(Where applicable)

- Name of existing policy or bond
- Policy/Bond number
- Issuer

- Validity period
- Coverage limit (USD/KES):
- Scope of coverage
- Deductibles
- Confirmation of applicability to the petroleum activity

Attach certified copies.

5. Insurer's Commitment Statement

(To be completed by insurer)

The insurer confirms that:

- The submitted Environmental Liability Policy complies with the Authority's requirements.
- The insurer guarantees availability of funds up to the approved limit.
- The insurer shall honour claims initiated by the Authority in case of operator default.

Signature (Insurer)

Name

Designation

Date

6. Operator Commitment Statement

I/We hereby confirm that:

- The assessment submitted is accurate.
- We will procure and maintain the required financial assurance instrument.
- We shall comply with all remediation and restoration obligations.

Signature (Operator)

Name

Designation

Date