

# **PETROLEUM INDUSTRY ACT**

## **UPSTREAM PETROLEUM SAFETY REGULATIONS**

**2022**

ARRANGEMENT OF REGULATIONS

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<b>PETROLEUM INDUSTRY ACT</b> <b>PETROLEUM SAFETY REGULATIONS 2022</b>	
<p>In exercise of the powers conferred upon me by section 9(1) of the Petroleum Act, section 3(1)(a) of Petroleum Industry Act 2021 and all other powers enabling me in that behalf, I, Muhammadu Buhari, President of the Federal Republic of Nigeria and Minister of Petroleum Resources, make the following Regulations -</p>	
<b>PART I - DUTIES OF COMPANIES</b>	<b>TOPIC</b>
1 – A Company to whom these Regulations apply shall:	
(a) appoint, in writing, a Manager who shall take continual charge of all operations authorized by the Commission Chief Executive.	<i>Appoint Manager</i>
(b) notify the Commission Chief Executive within 72 hours in writing, of an appointment made under sub-paragraph (a) of this regulation and of any subsequent change in the appointment;	
(c) provide, for its personnel, sufficient safety equipment and adequate Personal Protective Equipment (PPE), of internationally approved types;	<i>Provide PPE</i>
(d) ensure that all personal protective equipment is judiciously used and maintained in serviceable condition at all times;	
(e) provide firefighting and first aid equipment at the site of every well being drilled or worked over, flow station, or any installation handling crude oil, natural gas, LPG or any other petroleum products in accordance with good oil & gas operating practice and to the satisfaction of the Commission Chief Executive;	<i>Provide Fire Fighting and First Aid Equipment</i>
(f) provide for every operation clear, comprehensive, safe and practical operational procedures and guidelines for its personnel;	<i>Provide Procedures and Guidelines</i>
(g) develop good health protection and promotion program for its personnel, and mandate all its contractors to take similar actions;	<i>Protect Health of Personnel</i>
(h) ensure that every contract specifies in unambiguous words, the responsibilities of contractors with regards to safety of operations;	<i>Define Responsibilities of Contractors</i>
(i) develop and maintain contingency procedures and measures for the safety of personnel and equipment in an emergency;	<i>Provide Contingency</i>
(j) develop and update an integrated emergency plan for the management of all credible forms of hazardous events and accident situations that are likely to occur and ensure drills are carried out periodically.	<i>Plan For Emergencies</i>

2 – In the implementation of facility/equipment design, engineering, procurement, construction, modification, upgrade, hookup, commissioning or decommissioning, the Company shall:-	
(a) carry out comprehensive Safety Studies including hazard and risk analysis of the project with the Commission in accordance with relevant guidelines, API recommended practice, other internationally accepted procedures and documented standards of the Company where applicable.	<i>Conduct Safety Studies</i>
(b) ensure that all Major Accident Hazards associated with the project have been identified, recorded, analysed and reduced to As Low As Reasonably Practicable.	<i>Bring MAHs to ALARP</i>
(c) ensure that every safety, emergency and communication systems conform to acceptable standards and specifications in the oil and gas industry.	<i>Conform To Standards</i>
(d) ensure that the Commission participates in all technical safety studies, technical safety audits, critical equipment inspections and tests or other activities as may be determined by the Commission Chief Executive.	<i>Ensure Commission's Participation In Safety Studies and Test.</i>
(e) ensure that Pre-Startup Safety Audit is conducted, and approval is obtained from the Commission Chief Executive prior to commissioning and/or start-up of hydrocarbon handling facilities.	<i>Ensure PSSA is carried out.</i>
(f) ensure that every installation or facility has a valid Safety Case duly approved by the Commission Chief Executive and comply with relevant guidelines issued from time to time by the Commission for that purpose.	<i>Develop Safety Cases.</i>
(g) ensure that every facility has up-to-date Obsolescence Management Plan and every critical equipment or system has up-to-date Obsolescence Risk Register which shall be approved and audited from time to time by the Commission and shall comply with guidelines, directives or requirements issued by the Commission from time to time.	<i>Ensure all facilities have up-to-date OMP and ORR.</i>
(h) ensure that every ageing facility has a Life Extension Plan which shall be approved by the Commission Chief Executive and shall comply with guidelines, directives or requirements issued by the Commission from time to time.	<i>Develop Life Extension Plans for ageing facilities.</i>
(i) ensure that all facility development, modification, upgrade, debottlenecking, refurbishment or relocation conform to the requirements of IEC 61511 or similar standards with respect to Functional Safety.	<i>Ensure conformity to Functional Safety requirements.</i>

<p><b>3</b> – The Company shall ensure that:</p> <p>(a) it has a well-defined decommissioning and abandonment plan for all its oil and gas handling facilities.</p> <p>(b) its decommissioning and abandonment plan complies with all current regulations, guidelines and procedures for abandonment and decommissioning of facilities in the Nigerian Oil and Gas Industry and is approved by the Commission Chief Executive.</p> <p>(c) the implementation of the plan shall be undertaken in a manner that ensures that the plugging of hole in the earth's surface, removal and disposal of equipment and facility used with or in connection with the operation is done safely and in a manner that ensures that the environment continues to remain safe.</p> <p>(d) the use of novel well plugging and abandonment technologies shall go through the Commission’s technology qualification process and be approved prior to deployment in the field.</p>	<p><i>Prepare For Abandonment And Decommissioning</i></p>
<p><b>4</b> – A Company that:</p> <p>(a) fails to comply or ensure compliance with any of the provisions of this part of these Regulations</p> <p>(b) makes a false declaration to the Commission Chief Executive or willfully furnishes information so required which is in any respect false or insufficient</p> <p>is liable to a penalty issued by the Commission Chief Executive not exceeding Three Hundred Thousand United States Dollars (US\$300,000.00), or imprisonment for a term not exceeding 5 years or to both such penalty and imprisonment.</p>	<p><i>Offences Under This Part</i></p>
<p><b>PART II - DUTIES OF MANAGERS</b></p>	<p><b>TOPIC</b></p>
<p><b>5</b> – It shall be the duty of every Manager appointed pursuant to these Regulations to:-</p>	<p><i>Ensure compliance with Regulations and safety of People, Processes, Operations and Equipment</i></p>
<p>(a) ensure that the provisions of this part of these Regulations are fully complied with.</p>	
<p>(b) ensure that all rules, procedures and guidelines pursuant to provision 1 (f) of these Regulations are fully understood and complied with.</p>	

(c) ensure the overall safety of People, Processes, Operations and Equipment associated with the project under his management.	
<b>6 – The Manager shall:-</b>	
(a) appoint in writing, competent persons who shall supervise and be responsible for each of the following <b>upstream</b> operations: <ul style="list-style-type: none"> <li>i. seismic,</li> <li>ii. drilling,</li> <li>iii. production,</li> <li>iv. processing,</li> <li>v. loading,</li> <li>vi. transportation,</li> <li>vii. offshore,</li> <li>viii. diving operations,</li> <li>ix. marine,</li> <li>x. terminal operations,</li> <li>xi. inspection and maintenance,</li> <li>xii. and such other operations as the Company, or Manager may, from time to time, deem necessary.</li> </ul>	<i>Appointment of competent persons</i>
(b) appoint in writing, a competent person to oversee and be responsible for Health Safety & Environment matters.	
(c) report every appointment made under sub-paragraphs (a) and (b) of this regulation and any subsequent change to the Commission Chief Executive within 72 hours.	
(d) ensure that all competent persons are given appropriate training(s) for the efficient and safe performance of their duties.	
(e) maintain a documented system setting out the details and responsibilities of the competent persons, their mutual relations and lines of reporting and communication.	
(f) ensure that every operation or procedure is carried out by qualified personnel.	<i>Qualified Persons Only</i>
(g) ensure that a system is put in place to determine and approve the personnel that are qualified to perform each operation and process.	<i>Competency Determination</i>
(h) ensure that all personnel are given appropriate training for the efficient and safe performance of their duties.	
<b>7 – Except as otherwise provided in these Regulations, every exploration, drilling, production and other operation which is necessary for the production and subsequent handling of crude oil and natural gas shall</b>	<i>Conformance to Good Oil and Gas Field Practice</i>

conform with good oil and gas field practice which, for the purpose of these Regulations, shall be considered to be adequate if it conforms with:-	
(a) the appropriate current Codes of the Energy Institute; or	
(b) the American Petroleum Institute Codes; or	
(c) the American Society of Mechanical Engineers Codes; or	
(d) any other internationally recognised and accepted systems.	
<b>8</b> – The Manager shall ensure that only technologies duly qualified and approved by the Commission Chief Executive are deployed for operations including inspection and maintenance.	<i>Seek Approval For New or Novel Technologies</i>
<b>9</b> – The Manager shall ensure that:-	<i>Protection Against Injury</i>
(a) sufficient safety equipment, that meet international standards, are provided for the work force; and	
(b) every personal protective equipment is judiciously used and maintained in serviceable condition at all times.	
(c) appropriate barriers and risk reduction measures are in place to ensure that personnel exposure to hazards are reduced to As Low As Reasonably Practicable. The risk reduction measures for all hazards shall comply with hierarchy of hazard control philosophy..	
<b>10</b> – The Manager shall -	<i>Occupational Health</i>
(a) produce and conspicuously display at every drilling location or other installation, an up-to-date information on the names, addresses and telephone numbers of the nearest physicians, hospitals and ambulance services.	
(b) ensure that first aid kits are equipped with appropriate medicament and served by qualified first aid personnel;	
(c) ensure that contingency plans are in place to deal with injuries that are more serious than first aid cases.	
(d) ensure that there are functional medical facilities adequately equipped with medicaments, competent personnel and med-evac system to deal with situations arising from regulation 10(c). The qualified medical personnel shall at the minimum, possess nursing certification and be registered with and authorized by the "Nursing and Midwifery Council of Nigeria".	
(e) ensure pre-employment medical assessment is carried out to establish the health status and fitness to work of each employee	<i>Occupational Health</i>

prior to engagement, and thereafter conduct periodic medical assessment at a maximum of two-yearly intervals and ensure that all contractors take similar actions, and,	
(f) comply with the provisions of the current occupational health guidelines and standards for medical assessment of fitness to work in the oil and gas industry in Nigeria.	
<b>11</b> – The Manager shall ensure that:	<i>Noise Abatement.</i>
(a) Personnel are provided with the appropriate hearing protection if noise levels are equal to or greater than 85 dBA for an 8-hour Time Weighted Average (TWA).	
(b) No person shall, unless appropriately protected, be exposed to noise level equal to 115 dBA or greater for any length of time, notwithstanding that the TWA is below 85 dBA action level.	
(c) The sound pressure level at the edge of the nearest residential area shall not exceed 50 dBA at night.	
(d) Annual audiometric tests are conducted for all personnel working in high noise areas and results made available on demand to the Commission.	
<b>12</b> – The Manager shall ensure that every personnel:	<i>Safety training</i>
(a) employed offshore/swamp receive basic safety, emergency and survival training and undertake refreshers as appropriate, including: <ul style="list-style-type: none"> <li>(i) basic first aid and CPR,</li> <li>(ii) confined space escape,</li> <li>(iii) basic firefighting and Self Rescue,</li> <li>(iv) helicopter under water and Survival at Sea training,</li> <li>(v) lifeboat operation and usage;</li> </ul>	
(b) employed in oil and gas facilities/operation receive and undertake refreshers as appropriate: <ul style="list-style-type: none"> <li>(i) minimum industry safety training for the facility/operation e.g., HSE training for retail outlet, bulk storage, lube blending, product haulage, natural gas safety &amp; operations integrity etc.,</li> <li>(ii) advanced safety training as appropriate for their specific job function e.g., training and certifications for work at height, scaffolding etc., and</li> </ul>	



<p>(iii) such other training as the Commission Chief Executive or the Manager may deem necessary for the operation.</p> <p>(c) undertake such trainings in 12 (a) and (b) above at a training facility approved by Commission.</p>	
<p><b>13</b> – All work at height, scaffolding, rope assess, and other similar operations shall conform to international recognised standards such as technical guidance for national access &amp; scaffolding confederation (NASC) and comply with the current guidelines and requirements for work at height in the Nigerian oil and gas industry as approved by the Commission Chief Executive.</p>	<i>Work at Height</i>
<p><b>14</b> – The Manager shall ensure that;</p>	<i>Process Safety Management/ Integrity Operating Window</i>
<p>(a) All equipment is operated and kept within its Integrity Operating Window (IOW).</p> <p>(b) each process equipment has required controls and safety systems that monitor and actively control their IOW;</p>	
<p>(c) Any equipment that falls short of its Integrity Operating Window shall be removed from service except such equipment is de-rated and applied to a service proportionate to its new capacity such that it assumes a new integrity operating window.</p>	
<p>(d) Derating an equipment and defining Integrity Operating Windows shall be:</p>	
<p>(i) Carried out by competent persons,</p> <p>(ii) Certified by an appropriate third party, and</p> <p>(iii) Approved by the Commission.</p>	
<p><b>15</b> – The Manager shall ensure that -</p>	<i>Drilling Rig</i>
<p>(a) every rig or specialized vessel e.g., flotels, survey, installation vessels, etc. contracted to drill (or carry out special services) in Nigerian territory -</p>	
<p>(i) is inspected, technically audited and approved by the Commission Chief Executive before it is used by the Company, and</p>	
<p>(ii) thereafter, is inspected and audited every year:</p>	
<p>(b) every mobile rig conforms to its design criteria, construction standard and other safety standards contained in the International Maritime Organisation Code for the construction and equipment of mobile onshore</p>	

and offshore drilling units code 2009 edition and other subsequent amendments.	
<b>16</b> – (a) Reasonable provisions shall be made to prevent derricks and portable cantilever, telescoping and jack-knife masts from overturning due to wind velocity, and the guying system shall be constructed in accordance with standard safe practices in the oil and gas industry.	<i>Derricks in rigs</i>
(b) Escape lines (land rigs) shall be:-	
(i) free of knots, splices and other obstructions and	
(ii) so located and secured as to permit the derrick man to descend at a safe speed to a zone clear from the derrick.	
(c) Access routes from the derrick floor to the crown platform shall be provided and kept free of obstruction.	
(d) A safety harness and lifeline shall be provided for each employee who works above the first girt of a derrick or mast.	
(e) The lifeline shall be tested before the start of drilling and, thereafter, at weekly intervals and all employees who work on the derrick shall be instructed in its use.	
(f) Every drilling rig floor shall be kept as free of mud and oil as practicable in order to eliminate slipping hazards. The safety shoe shall be "anti-slip", meeting up to good oil and gas field standard.	
(g) Every tool board shall be mounted on the derrick floor and every tool shall be regularly inspected and checked to ensure its serviceability.	
<b>17</b> – (a) The blow-out preventer (BOP) installation shall be substantially constructed, securely fastened in place and be of adequate rating for the expected maximum shut-in surface pressure based on the anticipated downhole pressure.	<i>Blowout Prevention.</i>
(b) Well controlled drills shall be conducted once a week under a variety of operating conditions and, in addition, BOP tests shall be conducted during rig operating when the BOP is installed on the wellhead.	
(c) Emergency procedures and individual duties shall be fully understood and displayed conspicuously around the rig.	
<b>18</b> – Perforating operations shall be suspended during electrical, thunder and dust storms, and radio transmission shall be suspended during perforating operation to avoid premature detonation, that is waves setting off the blasting caps or the gun.	<i>Perforating Operations.</i>

<p><b>19</b> – (a) All rotation or reciprocating equipment and every dangerous part of any machinery shall be securely fenced or guarded, where it is practical to do so.</p>	<p><i>Moving Machinery.</i></p>
<p>(b) Every guard protecting rotary table chain or similar machinery shall be capable of resisting the shock of a breaking chain.</p>	
<p><b>20</b> – Ensure that Heating, Ventilation and Air Conditioning (HVAC) are provided as appropriate for all enclosed areas of the Installation such as living quarters, electrical switch rooms, equipment rooms and others with potential of build-up/ingress of harmful gases.</p>	<p><i>Heating Ventilation and Air Conditioning (HVAC)</i></p>
<p><b>21</b> – (a) The position and distance of a boiler, an oil treater or a hot work area in relation to borehole and dangerous area shall be taken into account before setting the boiler or oil treater or establishing the hot work area.</p>	<p><i>Boilers and oil treaters.</i></p>
<p>(b) Where practicable, every boiler or oil treater shall be placed upwind from the nearest borehole or well in the direction of the prevailing wind and in a naturally ventilated area.</p>	
<p>(c) Every boiler or oil treater shall be thoroughly inspected by competent personnel at intervals of 24 calendar months and fire tubes replaced when at the minimum thickness.</p>	
<p>(d) Non-destructive test, including Ultrasonic Thickness Measurement (UTM) survey or radiographic or any other acceptable inspection techniques shall be carried out on the boiler tube during an inspection under paragraph (3) of this regulation and to comply with applicable industry codes e.g., ASME/API and any other internationally accepted standards.</p>	
<p>(e) Pressure tests shall be carried out at intervals of not more than 24 months in accordance with the manufacturer’s recommended designed test pressure limits.</p>	
<p>(f) Records of the results of every inspection shall be kept and made available on demand.</p>	
<p><b>22</b> – (a) The installation of electrical equipment at well sites or all oil and gas handling facilities shall comply with the applicable code of International Practice, such as API RP 500.</p>	<p><i>Installation of electrical equipment etc.</i></p>
<p>(b) Every rig or oil and gas handling facility shall be:</p>	

(i) Fitted with emergency shutdown switches, capable of cutting off the electrical power from the facility and putting the facility in a failsafe mode and	
(ii) Placed close to the normal working position of the persons in charge and at strategic locations in the facility.	
<b>23</b> – (a) Every electrical apparatus in use on a rig or oil and gas handling facility shall comply with the national and internationally recognized specifications and codes of practices for intrinsically safe equipment i.e., safe flame or explosion proof apparatus such as British Standard BS EN IEC 60079-10-1:2021, the American National Standards Institute (ANSI) C2 National Electrical Safety Code of the USA, the National Fire Protection Agency (NFPA) 70: National Electric Code, etc.	<i>Electrical apparatus in use to comply with design specification.</i>
(b) Every cable gland and bolted cable coupler shall be constructed and installed in conformity with relevant recognized international standards for flame or explosion proof fitting of acceptable type. (c) Rigs and oil and gas handling facility wiring shall be (i) installed in a manner which protects it from abrasion, from being trampled on or being burned by hot piping. (ii) insulated to resist weather, chemical and handling to avoid short circuits; and (iii) inspected frequently, as dictated by good oil field practices and in compliance with the Institute of Electrical and Electronics Engineers Codes, codes from the UK Institution of Engineering and Technology (IET) or similar international codes.	<i>Electrical system in rigs and Oil and gas handling facility</i>
<b>24</b> – Every apparatus, cable, fitting and any other electrical material shall be installed and maintained to ensure that the flame proof or explosion proof characteristics, as the case may be, are not invalidated.	<i>Installation etc. not to invalidate flame characteristics.</i>
<b>25</b> – Every apparatus used for communication purpose within a dangerous area, shall be certified intrinsically safe in conformity with recognised standards such as British Standard BS EN 60079-11:2012 or other equivalent/acceptable international standards.	<i>Communication Equipment</i>
<b>26</b> – Every control device shall conform to good oil field practice, with respect to design, installation and maintenance, and safety guards shall be incorporated as applicable, to avoid accidents.	<i>Control devices.</i>
<b>27</b> – Every pressure gauge used within hydrocarbon handling installations shall be:-	<i>Pressure Gauge</i>

(a) inspected and calibrated for accuracy at intervals not exceeding 12 months.	
(b) tagged with relevant maintenance details.	<i>Tagging of inspection dates.</i>
<b>28</b> – (a) Every pressure vessels, etc. and its fittings in use in an oil field operation shall be regularly examined in accordance with the manufacturer’s recommendations and where no recommendations exist, then inspection shall be carried out in accordance with good oil field practice.	<i>Pressure vessels and oil heaters.</i>
(b) Records of every inspection carried out under regulation 27 and regulation 28(a) of these regulations shall be maintained and made available on demand.	
(c) Every oil heater and its internal and external parts and fittings shall be inspected at intervals of not more than 24 months and the fire tubes replaced when they are at the minimum thickness.	
(d) Every compressed air system/receiver shall be-	
(i) drained of liquid every day; and	
(ii) tested hydraulically to the recommended pressure:-	
(a) when the internal surface of the receiver cannot be inspected,	
(b) in any other case, not less than once in every 60 months	
(e) Every gas separator and scrubber shall be tested to the recommended test pressure whenever the opportunity occurs in accordance with applicable industry codes but at intervals not exceeding 5 years.	
(f) Every vessel, other than workover rig poor-boy and vacuum degasser, that has been in service for more than 20 years, shall be	
(i) inspected at intervals of not than 30 months; and	
(ii) tested hydraulically to the recommended test pressure during the inspection.	
(g) Every relief valve and process safety valve shall be inspected at least once in every 30 months or at such shorter intervals as shall be necessary to maintain them in satisfactory conditions to ensure that they-	
(i) operate effectively whenever the maximum allowable working pressure is applied; and	
(ii) pass full design quantity at those settings.	

(h) Every safety valve shall be stamped or tagged at its popping-pressures, and where appropriate, bursting discs of equivalent rating may be used in lieu of safety valve.	
(i) Every pressure vessel shall be tested with a calibrated pressure gauge which shall be-	
(i) graduated in pounds per square inch or the metric equivalent; and	
(ii) checked for accuracy at intervals not exceeding 12 months.	
(j) The calibration of pressure relief valves, process safety valves, pressure gauges and other process safety equipment shall be certified by accredited persons.	
<b>29</b> – Every new pipework and every pipework which has been extensively modified or repaired shall be tested in accordance with the American Society of Mechanical Engineers (ASME) working standards or recognised equivalent standards to 1.25 times the maximum allowable working pressure before being put into service.	
<b>30</b> – In these Regulations- “Recommended test pressure” means pressure which is not less than one and half times the maximum allowable working pressure.	
<b>31</b> – (a) Every pressure vessel, equipment and associated piping used in oil field installations shall meet internationally recognised standards for monitoring and controlling corrosion, with respect to their design, construction, routine inspection, testing and maintenance. E.g., the National Association of Corrosion Engineers (NACE) or other recognised equivalent standards.	<i>Standard for pressure vessels etc.</i>
(b) The following measures shall, in addition to the respective manufacturer’s recommended procedures, be taken in relation to every pressure vessel, equipment and associated piping used in oil field installations, that is-	
(i) non-destructive testing, including Ultrasonic Thickness Measurement (UTM), shall be carried out at intervals not exceeding once in 5 years to check the rate of both internal and external corrosion and erosion.	
(ii) when corrosion coupons are used for monitoring the corrosion rate in a pressure vessel, equipment or piping, the results obtained at any given time shall be recorded and be made available on demand,	
(iii) when cathodic protection system is chosen for the control of vessel internal corrosion, an appropriate design of the system shall be made to	

meet internationally recognised standards e.g., NACE or other equivalent standards.	
(c) The result of every inspection, test and survey carried out pursuant to this regulation shall be made available on demand.	
<b>32</b> – (a) Every permanently placed bulk storage tank containing liquid petroleum shall:-	<i>Bulk storage.</i>
(i) be installed within a bund wall capable of containing the contents of the largest tank plus ten per cent of the volume of the remaining tanks;	
(ii) be fitted with access ways sufficiently large to allow easy access, and vents capable of relieving any excess pressure or vacuum;	
(iii) have access to its roof by means of a ladder or staircase of approved standards.	
(iv) have provisions made for containing any leakage to prevent contamination of water by oil for tanks installed in marine environments.	
(v) be provided with efficient electrical earth connections, having an electrical resistance value not exceeding ten (10) ohms when measured by an earth resistance tester of the Megger or similar type and shall be inspected at intervals of not more than 24 months.	
(vi) be provided with adequate and dedicated fire detection and suppression system,	
(vii) be provided with adequate lightning protective device preferably of the “Envelope Protection type” that prevents any direct strike and the development of primary and secondary charges, or	
(viii) be provided with device equipped with multi-point ionizers, or	
(ix) be provided with any other device of similar protection effectiveness as recommended by any other relevant international bodies and approved by the Commission Chief Executive.	
(b) Every floating roof tank shall be equipped with adequate wind girders.	
<b>33</b> – No workman shall enter into a confined/semi-confined space or a hydrocarbon storage tank for cleaning or inspection, except:	<i>Entering Tanks, confined/semi-confined spaces</i>
(a) that person has undergone appropriate training and risk assessment for that purpose.	
(b) the person shall not enter without proper breathing apparatus.	

(c) the confined/semi-confined space or a hydrocarbon storage tank shall be continuously ventilated and tested to safe levels of hydrocarbon and harmful gases.	
<b>34</b> – (a) During storage tank cleaning operations:-	<i>Cleaning of storage tanks</i>
(i) adequate safety equipment and devices shall be provided for personnel entering the tank for their protection and survival in case of emergency while working in the tank.	
(ii) the use of sand as an abrasive agent in blasting activities for cleaning of steel structures - tanks and pipelines shall be minimised, and	
(iii) abrasive agents, when desired, shall be of less than 1 percent free silica and only be used when adequate safety precautions have been taken.	
(b) If the gas concentration in a storage tank exceeds 5 percent of LEL:	
(i) gas masks shall be worn by personnel	
(ii) the tools used shall not be capable of causing sparks, and	
(iii) hand lamps and torches used shall be certified flame proof, Group II, in conformity with recognised international standards such as British Standard BS EN IEC 60079-7 or the US National Electrical Safety Code.	
<b>35</b> – (a) Storage tanks shall be opened for internal inspection at intervals of not more than 60 calendar months.	<i>Inspection of storage tanks.</i>
(b) During an inspection:-	
(i) the tanks shall be subjected to thorough visual and non-destructive test inspections.	
(ii) any defect affecting the integrity and operability of the tanks observed shall be repaired and or rectified, and	
(iii) ultrasonic Thickness Measurement (UTM) of tank shells shall be carried out and records made available on demand.	
(c) tank bottom plate shall be inspected by competent personnel using effective and safe methods and technologies as may be determined by the Manager and approved by the Commission Chief Executive.	
(d) results of these inspections shall be documented and made available on demand.	



36 – (a) The bottom plate of every tank shall be effectively equipped with cathodic protection device which shall be designed to meet internationally recognized standards e.g., NACE or other equivalent standards.	<i>Protection devices for tanks.</i>
(b) The Manager shall ensure that processes for the effective monitoring of cathodic protection systems are regularly reviewed and updated in accordance with the systems’ design standards.	
(c) The internals of tanks shall be coated appropriately to meet recognized standards e.g., NACE requirements. Floor plate coating shall be 100% inspected using appropriate equipment such as holiday detector.	
37 – All petrol, diesel oil or LPG tanks shall be sited a safe distance from any oil well being drilled or worked over or any dangerous area in a direction downwind from the prevailing wind.	<i>Fuel storage tanks.</i>
38 – (a) No person shall enter a tank and confined/semi confined spaces which has contained hydrocarbon unless:	<i>Person entering tanks etc.</i>
(i) the tank has been certified safe by a competent person or	
(ii) there is attached to him, a lifeline held by another person standing	
(1) outside at a safe distance and	
(2) in a position to observe if the person is overcome by gas or fumes	
(b) No person shall enter a sump or well cellar which has contained hydrocarbons unless there is attached to him, a lifeline held by another person standing:-	
(i) at the top of the sump or well at a safe distance, and	
(ii) in a position to observe if the person is overcome by gas or fumes	
(c) A person holding a lifeline referred to in regulation 38(a)(ii) and regulation 38(b) of these regulations shall be adequately trained for that purpose and:	
(i) if an accident occurs, call for help and	
(ii) be equipped to render such assistance as is practicable without entering the tank, sump or well cellar until the help arrives.	
39 – (a) Every crane and hoist shall be operated by a trained person who shall always ensure that the crane or hoist is never used to lift loads exceeding the maximum crane capacity.	<i>Lifting equipment.</i>

(b) The chains, ropes, lifting tackle, hook and brake system of the crane or hoist shall be inspected and maintained as recommend by their manufacturers.	
(c) General preventive maintenance shall be carried out on every crane and hoist as recommended by the manufacturer or at intervals of not more than 12 months.	
(d) Records of periodic maintenance shall be kept and made available on demand by the Commission.	
<b>40</b> – (a) Every pipeline used in an operation shall be designed, constructed and maintained-	<i>Pipeline</i>
(i) in accordance with the relevant provisions of the ANSI, ASME, DNV, NACE and other applicable national and international standards and good oil & gas field practices, and (ii) in compliance with the guidelines issued by the Commission Chief Executive.	
(b) No pipeline shall be put into operation unless commissioning approval has been obtained from the Commission Chief Executive.	
(c) The right of way of every pipeline shall be free of over-growth and weeds to allow for free access to carry out operational tests and any other maintenance work and for prompt detection of leakages.	
(d) Pipelines conveying hydrocarbons shall be designed with pigging facility to allow pigging operation to be conducted at intervals not exceeding 5 years. (e) An initial data gathering shall be obtained from any newly commissioned pipeline and this shall form the baseline for the integrity of the facility.	
(f) Pipeline pressure testing shall be carried out at intervals of not more than five years at pressure not less than 125 percent of the maximum operating pressure.	
(g) A pipeline running on the surface shall be externally coated to meet the relevant provision of the NACE or equivalent standards to prevent atmospheric corrosion attack.	
(h) Every pipeline shall be suitably coated before burial and thereafter cathodic protection shall be provided.	
(i) within 12 months, in the case of dry land; and	

(ii) within 6 months, in the case of swamp land.	
(i) The cathodic protection system shall be designed and constructed to meet the NACE standards or other internationally recognised equipment standards.	
(i) Cathodic protection potential survey shall be carried out on all buried pipelines at intervals of not more than 24 months to ensure that every section of the protected line attains a negative potential of not less than 850mV with reference to copper/copper sulphate reference electrode.	
(j) The result obtained during a survey carried out pursuant to regulation 40(i) of these regulations shall be recorded and made readily available on demand.	
(k) The Commission may appoint officials to witness any periodic survey carried out pursuant to regulation 40(i) of these regulations.	
(l) All other applicable safety provisions for the design, construction commissioning, operation and maintenance of pipelines shall be as stipulated in the current editions of the guidelines issued by the Commission.	
<b>41</b> – (a) Standard Operating Procedures (SOP) shall be developed for each major and/or safety critical equipment.	<i>Major and Safety Critical Equipment</i>
(b) Inspection and maintenance operations shall be conducted according to original manufacturer specifications, company-specific inspection procedures, or in line with the Commission’s Risk Based Inspection (RBI) guidelines and conform with good oil & gas field practices.	
(c) The Manager shall ensure that there are sufficient spares for critical safety equipment, and that such spares are made available and ready for use when required.	<i>Sparing</i>
<b>42</b> – (a) The Manager shall develop a comprehensive Management of Change Procedure for facilities and operations under his management.	<i>Management of Change</i>
(b) No deviations shall be made from Standard Operating Procedures and/or equipment/process configuration and no change shall be made to the facility that may introduce risk, unless such deviation or change is risk assessed, subjected to Management of Change Procedure and approved in writing by the Manager.	
(c) All deviations and changes shall be documented, systematically recorded and made available on demand.	
<b>43</b> – (a) Proper hazardous area classification shall be carried out.	<i>Fire Fighting</i>

(b) There shall be established, in areas of operation, in appropriate locations, restricted areas in which open light, fire and smoking shall be prohibited.	
(c) A sufficient number of approved firefighting equipment shall be provided.	
(d) The firefighting equipment shall be:-	
(i) inspected in accordance with the manufacturers recommendations or at least twice a year; and	
(ii) maintained in serviceable condition at all times.	
(e) Records and tags shall be maintained showing the last dates of service of the equipment.	
(f) The personnel shall be:-	
(i) trained in the use of the firefighting equipment; and	
(ii) be given refresher courses in a maximum of 4-yearly period to reinforce and update their abilities to use the firefighting appliances.	
<b>44</b> – (a) The Manager has principal responsibility for the safety of the personnel, including his contractors and shall ensure that sufficient safety and risk awareness training and certifications are given to personnel and contractors prior to their deployment at onshore or offshore locations;	<i>Reporting of accidents</i>
(b) the Manager shall establish a system to ensure that personnel report all HSE incidents including near misses at a well site, hydrocarbon handling facilities or in connection with an operation under a licence or lease without any repercussion to the persons making the report unless there is willful misconduct, negligence or criminal intent;	
(c) the reported incidents shall be properly documented, analysed and reviewed, learnings disseminated to personnel and follow up actions taken to prevent reoccurrence. The records of the HSE incidents and follow up actions shall be made available on demand;	
(d) the occurrence of the following incidents related to a well site or hydrocarbon handling facility or in connection with an operation shall be reported to Commission within 24 hours of the occurrence:	
i. the death of a person	
ii. fire or explosion	
iii. an accident resulting in serious injury,	
iv. high-potential event (HPE) that could have resulted in serious injury or death.	

(e) the report of such incidents shall conform with the current incident reporting format and guidelines approved by the Commission Chief Executive;	
(f) For the purpose of this regulation “serious injury” means -	
(i) a fractured skull, pelvis, thigh, spine, arm, forearm or leg;	
(ii) a dislocated shoulder hip, knee or spine;	
(iii) the amputation of an arm or hand, or of one finger or more on the same hand, or of a leg or a foot.;	
(iv) the loss of the sight of an eye or chemical or hot metal burn to the eye or any penetrating injury to the eye,	
(v) any other serious bodily injury including internal hemorrhage, burns and asphyxia, where the injury is likely to endanger life, cause permanent incapacity or substantially impair efficiency.  (vi) any other injury of similar magnitude or as may be specified by the Commission Chief Executive from time to time;	
(g) for the purpose of this regulation, “high-potential event” mean:  (i) unintended collapse or overturn of structure or installation,  (ii) the collapse of, the overturning of, or the failure of, any load-bearing part of a lift or lifting machinery,  (iii) blowout or uncontrolled flow of well-fluids from a well,  (iv) man overboard incidents,  (v) vessel or aircraft collision with installation,  (vi) loss of stability or buoyancy of a floating installation,  (vii) explosion/Implosion of pressure Vessel or Tanks used for processing, storage and transportation of hydrocarbon,  (viii) Workers suffering from contagious diseases such as COVID-19, Chickenpox, Cholera, Lassa Fever, Tuberculosis, Viral hepatitis, etc.  (ix) any other event with similar magnitude or as may be specified by Director of Petroleum Resources from time to time.	
<b>45</b> – For the safe conduct of offshore operations, the Manager shall ensure that -	<i>Offshore/Swamp Operations</i>
(a) all operational facilities such as but not limited to platforms, vessels, rigs etc. are well equipped, adequate for the environment of operation;	

(b) premobilization and/or pre-shipment safety inspection shall be conducted by officials of the Commission prior to deployment or operation in the Nigerian oil and gas industry;	
(c) there is an adequate oil spill response plan and associated equipment approved by the Commission Chief Executive;	
(d) competent and well-equipped standby diving set-up is available when diving operations are in progress or are likely to be required;	
(e) there are personnel floatation devices for each person at the location;	
(f) a platform, rig or vessel evacuation plan is in place and understood by all personnel at the location;	
(g) all personnel working in swamp and offshore locations are fully accounted for with an accountability system prescribed by the Commission Chief Executive;	
(h) all personnel comply with the current guidelines and procedure for travel to offshore/swamp location;	
(i) on arrival at the location, all personnel receive instruction on proper use of life-saving equipment and safety procedures including evacuation modes;	
(j) there are available such other things and materials as are necessary for the operation.	
<b>46</b> – (a) All journey and travel shall be undertaken using an approved journey management plan that caters for contingencies.	<i>Air, Land and Marine Travel</i>
(b) embarkation to offshore/swamp facilities shall be through embarkation points recognised and approved by the Commission Chief Executive;	
(c) all passengers travelling to and from oil and gas facilities and locations shall, before the commencement of any air, land or marine travel, be briefed by ground crew and appropriate personnel on safety and emergency measures;	
(d) passengers shall await the aircraft, vehicle or boat at designated locations;	
(e) Every pilot shall comply with Nigerian Civil Aviation Authority (NCAA) requirements to:-	
(i) undertake biennial reviews to certify flight performance ability;	
(ii) successfully complete water survival courses	

(iii) undertake refresher courses every 4 years, and	
(iv) any such other requirements as may be imposed, from time to time, for pilots.	
(d) All air travel shall conform to relevant NCAA requirements.	
<b>47</b> – The handling and disposal of:- (a) Liquid and solid wastes, including drilling fluids and mud, drill cuttings, deck drainages, sanitary and domestic wastes, accidental oil spills or blow-out and; (b) Other wastes generated from drilling operations; shall conform with specifications prescribed in the Upstream Petroleum Environmental Regulations “UPER” as approved by the Commission Chief Executive.	<i>Waste Management</i>
<b>48</b> – The Manager shall ensure that for a planned shutdown of a facility:	<i>Planned Shutdown</i>
(a) Procedure for shutdown and startup is developed.	
(b) The Commission is notified prior to the commencement of the shutdown	
(c) Hazard Analysis is conducted prior to the shutdown, to ensure the safety of personnel and facility.	
(d) No deviation from the shutdown and start-up procedure shall be accepted without Management of Change.	
<b>49</b> – (a) All marine vessels, rail wagons and bulk road vehicles used for the storage and transportation of hydrocarbon shall be certified fit for purpose and be approved by the Commission Chief Executive.	<i>Loading, Transportation, Offloading</i>
(b) The vessels, wagons and vehicles shall be adequately inspected and maintained in accordance with the requirements of the Commission and other relevant local and/ or international codes & standards.	
(c) Records and result from the inspections carried out pursuant to subsection (b) of this Regulation shall be kept and made available on demand.	
(d) The last and next inspection dates shall be clearly marked and made visible on all vessels that store and or handle petroleum.	
(e) Standard procedures shall be developed and maintained for storage, loading, transportation and offloading operations for all classes of hydrocarbons including proper earthing as stipulated by guidelines issued by the Commission.	
<b>50</b> – No person shall use an explosive at a well site or in an installation where petroleum is handled unless he is authorised by the Manager, and	<i>Handling of Explosives</i>

prior approval for the handling and use of explosives at the well site or installation has been given by the relevant agency of Government.	
51 – A report shall be made to the Commission Chief Executive of any use of explosives authorised by the Manager within 48 hours under regulation 50 of these Regulations.	
52 – Without prejudice to the provisions of the Nuclear Safety and Radiation Protection Act 1995, the Manager shall ensure that	<i>Handling of Radioactive Materials</i>
(a) every radioactive source planned to be used in a petroleum operation shall be registered with the Commission. The Manager shall provide all necessary information as may be required by the Commission in respect of the radioactive source.	
(b) The competent person appointed pursuant to these Regulations, takes all practicable measures to prevent exposure of personnel to radioactive materials.	
(c) Appropriate training shall be given to personnel on the nature of radiological hazards and the precautions to be observed for all radioactive materials in use in the operations they are engaged in.	
(d) No disposal or accumulation of radioactive wastes is made except in accordance with the NNRA Code of Practice and IAEA procedures.	
(e) The NNRA Code of Practice and all the IAEA guidelines and recommended standard practices for handling, shipping, transportation, storage and use of radioactive sources are strictly complied with in the use of those sources.	
(f) Radioactive sources of minimum strength for the required task shall be used.	
(g) For radioactive sources used in downhole operations, the capsule containing the isotope shall be designed so as to withstand anticipated well-bore temperatures and pressures without rupture or leakage.	
(h) Wipe or leak tests shall be performed on capsules containing the isotope at intervals of 3 months, as preventive measures and the records made available on demand.	
(i) the failure of radioactive sources or irradiation equipment to de-energise or return to its safe position after the intended exposure period shall be reported to the Commission Chief Executive within 48 hours.	
(j) To avoid accidental loss or theft, isotope sources shall:-	
(i) be securely stored at the operating bases.	



(ii) carry warning labels as approved by the NNRA and the IAEA.	
(iii) be transported in locked containers on specially licensed vehicles and	
(iv) be fully documented at every stage of handling or transfer	
(k) at the operating base, suitable underground pits shall be used for storage of isotope sources.	
(l) On offshore platforms and barges, special shielded containers shall be used to store and transport radioactive sources.	
(m) The transport index of each radioactive source shall be conspicuously displayed or tagged on the container.	
(n) For safe field operation of an isotope source, attention shall be paid to	
(i) minimising the time of exposure	
(ii) maximising the distance from the source at all times; and	
(iii) providing good shielding to reduce the dose rate.	
(o) Personal dosimeters shall be issued to and worn by radiation personnel and be evaluated on monthly basis.	
(p) Recommended dose levels by the NNRA, IAEA and the International Commission on Radiation Protection shall be strictly complied with, but in general, the annual dose level in the case of:-	
(1) average exposure of radiological personnel over a five (5) year period shall not exceed 20mSv per annum, and annual exposure shall not exceed 50mSv. (25 uSv per hour for 2000 hour exposure per year) and	
(2) non-radiological personnel (the public) shall not exceed 100 mr (1mSv) per year.	
(q) Where a tool containing a radioactive source cannot be recovered from a well, it shall be promptly reported to the Commission Chief Executive with details of the abandonment procedure followed in securing the tool safely in place.	
<b>53</b> – Without prejudice to the provision of these Regulations, the Manager may apply for the implementation of a Risk Based Inspection (RBI) program for an oil and gas asset. Such application shall be in conformity with the prescribed format set out in the current Guidelines for the Implementation of Risk Based Inspection in the Nigerian Oil and Gas Industry and subject to the approval of the Commission Chief Executive.	<i>Risk Based Inspection (RBI)</i>

54 – (a) The results of every inspection, test and survey carried out pursuant to these Regulations shall be systematically documented, maintained and made available on demand.	<i>Documentation of Inspection</i>
(b) Safety signs shall be prominently displayed to provide awareness, caution and direction, such as areas of “No Smoking”, "high noise", "exit", "muster point", etc.	<i>Safety Signs</i>
(c) Relevant information of emergency contact and numbers e.g., nearby emergency firefighting outfits shall also be displayed.	
(d) The Manager shall develop appropriate hazard communication channels, e.g., use of posters, bulletins, slogans, jingles, etc.	<i>Hazard Communication Channels</i>
55 – (a) There shall be provided and kept in readiness for immediate use and to the reasonable satisfaction of the Commission adequate means designed to extinguish fires which may occur in any well being drilled or worked over, flow station or other installation where petroleum is handled.	<i>Fire Precautions</i>
(b) Each item of a firefighting equipment shall be inspected at least 2 times a year by a competent person.	
(c) The date of the last inspection of a firefighting equipment shall be tagged or painted on the appliance and the result of the inspection entered in a logbook kept on site for that purpose.	
(d) Persons employed on site shall be instructed in the use of firefighting equipment and instruction to those persons in case of fire shall be clearly and concisely expressed and prominently displayed on the location.	
(e) A “No Smoking” sign shall be prominently posted at strategic points in a restricted area	
(f) When a pipeline runs in an open trench, a fire stop shall be provided at such intervals as may be specified in the relevant guidelines, except that the distance between any two fire stops shall not exceed 90 metres.	
(g) A fire clearance zone of a minimum of 3 metres shall be maintained around the perimeter fence of any well being drilled or worked over, flow station, depot or other installation where oil and gas is handled or stored.	
(h) A Company which maintains a firefighting unit or service shall while responding to or engaged in or returning from a firefighting operation, have the right of access, right of way and security of its fire equipment as granted to the Federal Fire Service under sections 32, 33 and 35 of the Fire Service Act.	

<b>56</b> – The use of internal combustion engines within-	<i>Use of Internal Combustion Engines</i>
(a) 45 metres of the centre of any bore-hole being drilled for crude oil, gas or being worked over; or	
(b) 30 metres of an area with potential for flammable content susceptible to ignition	
is prohibited unless precautions have been taken to prevent fire or explosion.	
<b>57</b> – There shall be made available for every offshore operation a management system manual, specifying:-	<i>Offshore Management System Manual</i>
(a) the share of responsibilities between marine crew and drilling or production crew;	
(b) the lines of command in an emergency;	
(c) the share of responsibilities between offshore organisation and shore base organisation;	
(d) the inter-field responsibilities and communications	
(e) the scheme for risk analysis, system for implementation and follow up of results;	
(f) the helicopter abandonment procedures in the event of a ditch or capsized, including ditch preparation, stable flotation abandonment and capsized abandonment procedures;	
(g) the personnel documentation procedures at the shore base; and	
(h) the arrangements for protecting persons on the installations from hazards of explosion, fire, heat, smoke, toxic gas and fumes during a period of emergency.	
<b>58</b> – (a) Safe access shall be:-	<i>Safe access.</i>
(i) provided on all drilling rigs and other installations, with non-slip walkways and handrails leading over complex pipe systems and other obstructions; and	
(ii) kept free of obstructions	
(b) every drain in the area of general access shall be covered	
<b>59</b> – (a) Every well being drilled or worked over, flow station, pump station, jetty, tank farm, pipeline, LPG station and similar installation shall	<i>Restricted areas and access control</i>

constitute restricted areas and their boundaries shall be clearly defined and secured.	
(b) No person shall be admitted into a restricted area unless he is authorised to do so by a competent person.	
(c) A notice shall be prominently displayed at the entrance of a restricted area giving details of the nature of the restrictions.	
(d) Effective measures shall be put in place to prevent and detect unauthorized access to the restricted areas	
<b>60</b> – (a) The Manager shall provide appropriate equipment and systems for immediate detection and effective control of toxic and or combustible gases.	<i>Detection and Management of toxic/combustible gasses</i>
(b) The occurrence of hydrogen sulphide in any gas or oil well shall be reported to the Commission within 24hours of the occurrence.	
(c) Tests shall be made immediately after the occurrence referred to in paragraph (2) of this regulation to determine the concentration of the hydrogen sulphide in the gas and steps shall be taken to immediately protect all persons working on the well.	
(d) The danger of breathing hydrogen sulphide bearing gas shall be made known to all personnel on site.	
(e) The precautions taken shall include the provision of an adequate number of blowers and self-contained air or compressed air type breathing apparatuses at the well and on any subsequent well in the same field or on any other well likely to penetrate the hydrogen sulphide bearing formation.	
<b>61</b> – A copy of these Regulations shall be prominently displayed at all times at ever, location, facility or installation undertaking oil and gas operations.	<i>Display of Regulations.</i>
<b>62</b> – A Manager who:  (c) fails to comply or ensure compliance with any of the provisions of this part of these Regulations (d) makes a false declaration to the Commission Chief Executive or willfully furnishes information so required which is in any respect false or insufficient  is liable to a penalty issued by the Commission Chief Executive not exceeding N10,000,000 or imprisonment for a term not exceeding 5 years or to both such penalty and imprisonment.	<i>Offences under this Part.</i>

### **PART III - DUTIES OF PERSONNEL**

**63** – It shall be the duty of every competent person appointed under regulation 1(a) of these Regulations to ensure that the provisions of this Part of these Regulations are fully complied with.

### **TOPIC**

*Competent persons to ensure compliance with Regulations*

**64** – No person under the age of 18 years shall be engaged to work at a dangerous area.

*Exclusion of children from dangerous area*

**65** – No person shall accumulate or permit the accumulation of flammable or combustible materials at any well, flow station, depot, pump station, tank farm or any other installation handling petroleum.

*Prohibition of accumulation of flammable materials*

**66** – (a) Every person, working on a drilling rig, flow station, depot, pump station, tank farm, or other installation handling petroleum, shall wear personal protective equipment that will provide adequate protection against credible hazards and is in line with good oil field practice.

*Safety belts, etc.*

(b) Every person working at a fixed workstation above the derrick floor of a drilling rig or other high-rise installation or at a height above six (6) feet shall wear appropriate fall protection devices.

(c) No tool, machine part or other loose material of any kind shall be kept above the derrick floor or on the elevated platform of an installation, unless it is required for immediate use, in which case adequate precaution shall be taken to prevent injury to any person below.

**67** – No counterbalance shall clear the ground or derrick floor by more than one and a half metres unless adequate precaution is taken to prevent injury to any person below the derrick floor.

*Counterbalance*

**68** – (a) No person shall remove or render ineffective any safeguard while the machinery relating to it is in operation.

*Machinery Safeguards*

(b) Where it is necessary to make an adjustment or a repair to a machinery, the

machinery shall be shut down and not be operated again until the safeguard is replaced.

(c) LOTO "log out tag out" system or an alternative effective protection system consistent with good oil & gas field practice shall be applied to prevent unsafe inspection or maintenance of machinery.

*LOTO "log out tag out" system for machinery.*

**69** – (a) No person, other than a duly qualified person or technician, shall open or restore a flame proof or an explosion proof equipment, and on

*Electrical Apparatus*

completion of any necessary adjustment or repairs of the equipment, the person shall ensure that it is so restored that the flame proof or explosion-proof characteristics have not been impaired by the opening and closing of the equipment.

(b) An adjustment to or a repair of any apparatus within the flame proof or explosion proof equipment shall not be carried out until all the live parts within it have been made dead and efficiently earthed.

**70** – No person, other than a duly qualified person, shall repair, adjust or maintain a signaling equipment, and on completion of any repair, adjustment or maintenance, the person shall ensure that the intrinsic safety qualities of the electrical circuit have not in any way been impaired.

*Signaling equipment*

**71** – No person who is at a well or in an installation where petroleum is being handled shall:

*Sleeping, drinking etc. on duty*

(a) during the period he is on duty:

(i) sleep, or

(ii) consume an alcoholic liquor or a hard drug or

(b) be admitted for duty while under the influence of alcoholic liquor or hard drug.

**72** – No person who is at a well or in any other restricted area, within the context of these Regulations, shall:-

*Prohibition of smoking etc. in restricted areas*

(a) smoke; or

(b) be in possession of prohibited items such as firearms, explosive knives, etc. and any other item the manager proscribes; or

(c) use any naked light;

(d) make any fire; except in such places as may be set aside and notified by the Manager for that purpose as being safe, for the prevention of fire. or

(e) use any communication or digital device that is not certified as intrinsically safe.

**73** – (a) A competent person shall be responsible for the observance of all safety measures at a drilling site or at an installation handling petroleum where work is in progress and in particular, he shall ensure that work does not

*Other Safety Measures*

(i) start before essential safety measure are in place or

(ii) continue if safety can no longer be assured.

- (b) Any person who notices an unusual escape of
  - (i) petroleum oil or gas from a well, pipeline or an installation, or
  - (ii) anything unsafe or likely to produce damage,
 shall forthwith inform the Manager or competent person of the escape

**74** – Any person who:

- (a) fails to comply or ensure compliance with any of the provisions of this part of these Regulations *Offences under this Part*
- (b) makes a false declaration to the Commission Chief Executive or willfully furnishes information so required which is in any respect false or insufficient

is liable to a penalty issued by the Commission Chief Executive not exceeding N1,000,000 or imprisonment for a term not exceeding 2 years or to both such penalty and imprisonment.

**PART IV - DIVING OPERATIONS: RESPONSIBILITIES AND REQUIREMENTS**

**TOPIC**

**75** – It shall be the duty of the Manager to:

*Diving Operations*

- (a) Safely handle all diving operations and the activities of his diving contractors, to ensure that, as far as is reasonably practicable, the activities are carried out in accordance with all relevant local legislation, codes, standards and other international safe diving practice.
- (b) Ensure that:-
  - (i) There is in writing clear and concise responsibilities, guidelines and directives for all personnel supervising or engaged in diving operations.
  - (ii) Diving procedure manuals, emergency and contingency guidelines are kept on site and readily available to an inspector of the Commission on demand.
  - (iii) A diving contractor who is retained on a long-term basis, is evaluated every 6 months, to ensure that his performance is in keeping with approved standards, and
  - (iv) The equipment deployed to the operations remain in perfect conditions.
  - (v) Where a diving operation is to be carried on during the hours of darkness, such plant and equipment as may be necessary to illuminate adequately the place from which the diving is being carried on shall be provided, except where the nature of the diving operation renders the illumination undesirable.

(vi) Each gas cylinder used in a diving operation shall be clearly marked with the name and the chemical formula of its contents.

(vii) No person, other than an approved or a certificated doctor who has been trained in hyperbaric and Diving Medicine, shall issue a certificate of medical fitness to a diver before being engaged in a diving operation.

(viii) The plant and equipment for diving operations shall be regularly examined, tested and maintained to ensure that they can safely be used.

(ix) The examination of plant and equipment for diving operations shall be carried out by a competent person within 6 hours immediately before a diving operation

(c) Require a diving contractor to supply breathing mixture of suitable content and temperature, and of adequate pressure and rate to sustain prolonged vigorous physical exertion at ambient pressure for the duration of any diving operations.

(d) Comply with the current guidelines and requirements for Diving Operations in the Nigerian Oil and Gas Industry as approved by the Commission.

**76** – (a) Every diving contractor who, to an extent, is responsible for, has control over or is engaged in a diving operation shall ensure, so far as is reasonably practicable, that appropriate international diving regulations are complied with and in particular he shall:-

*Diving contractors*

(i) Appoint a competent diving supervisor, in writing, to be in immediate control of the diving operation on site.

(ii) Issue guiding rules for regulating the conduct of all persons engaged in the diving operation.

(iii) Provide diving operations logbook which is to be maintained and retained for at least 2 years after the date of the last entry in it

(iv) Ensure that all essential tools and facilities for safe operation are available and functional before the commencement of a diving operation

(v) Not permit the use of compressed natural air as the breathing mixture in any diving operation at a depth exceeding 50 metres.

(b) The contractor shall so far as it is reasonably practicable ensure that

(i) Emergency services are available including, in particular, in the case of a diving operation using saturation techniques or at depth exceeding 50 metres, facilities for transferring the divers safely under suitable pressure



and conditions to a place where treatment can be given safely under pressure.

(ii) There are effective means of communication between the place at which the operation is being or is to be carried out and the emergency services.

**77** – (a) The diving supervisor shall have the discretion of deciding whether conditions are not safe enough to commence or continue a diving operation. *Diving Supervisor*

(b) If the on-site diving supervisor decides to take part in the diving operation as a diver, he shall designate a qualified person to take charge of the diving operation.

**78** – A person shall not take part in a diving operation as a diver unless he has *Divers*

(a) Undertaken formal training to ensure that he is competent to use the plant equipment provided for the operation and

(b) A valid certificate of medical fitness to dive issued by a doctor in Nigeria who has trained in Hyperbaric and Diving Medicine, and who is accredited by the Commission.

**79** – There shall be for every diving operation a standby diver who shall: *Stand-by Diver*

(a) Where a diving bell is being used;

(i) Descend in the bell to the depth from which work is to be carried out and remain in the bell to monitor the diver or divers who leave it, and

(ii) Be in immediate readiness to render assistance to them in an emergency.

(b) In all other cases, be in immediate readiness to dive, except that where there are two divers in the water at the same time who are near enough to be able to communicate with and to render assistance to each other in an emergency; each one of them may be regarded as the stand-by diver for the other.

**80** – There shall be an extra diver on the surface to render assistance where there is:-

(a) A special hazard and, in particular, where a diver is likely to be endangered by strong current or

(b) Risk of a diver being trapped, or his equipment entangled

**81** – A person who: *Offences under this part*

- (e) fails to comply or ensure compliance with any of the provisions of this part of these Regulations
- (f) makes a false declaration to the Commission Chief Executive or willfully furnishes information so required which is in any respect false or insufficient

is liable to a penalty issued by the Commission Chief Executive not exceeding N1,000,000.00 (one million naira) or imprisonment for a term not exceeding 2 years or to both such penalty and imprisonment.

## **PART V - MISCELLANEOUS**

### **TOPIC**

**82** – Where an accident is reported to the Commission under section 44 of these Regulations, the Commission Chief Executive may order an investigation and/or inquiry into the circumstances surrounding the accident.

*Inquiries into accidents.*

**83** – (a) A person holding an inquiry under regulation 82 of these Regulations shall, for the purpose of the inquiry, have the powers, to -

- (i) summon witnesses
  - (ii) call for the production of books and documents; and
  - (iii) examine witnesses and parties
  - (iv) Call for an autopsy to be conducted to ascertain the cause of death in cases of suspicious circumstances.
- (b) A person summoned to attend or to produce a book or document who:-

- (i) refuses or neglects to do so; or
- (ii) refuses to answer any question put to him by or with the concurrence of the officer holding the inquiry;

is liable to a penalty issued by the Commission Chief Executive of not more than Two Hundred and Fifty Thousand dollars (USD250,000).

(c) No person answering a question put to him shall be put under pressure to incriminate himself.

(d) A witness attending at the request of or upon summons by a person holding the inquiry, shall, subject to any order made by the person, be entitled to the same expense allowance as if summoned to attend a

magistrate court and payment shall be made in the same manner as if the person were a witness in a trial in a court of law.

(e) All summons shall be in the form set in the schedule to these Regulations and shall be served by such other person as the officer issuing the summons may direct.

**84** – No person shall locate a building in which fire or light, other than a flame proof or explosion proof electric lighting installation, is used, within:-

*Limitation on location of buildings*

(a) 45 metres of the centre of a borehole being drilled for or producing oil or gas or being worked over; or

(b) 30 metres of a dangerous area; unless the building is positive pressurized and purged with clean air.

**85** – The powers and duties of the Commission Chief Executive under these Regulations may be exercised or performed, as the case may be, by any public officer duly authorised in writing in that behalf by him.

*Delegation of powers of Commission Chief Executive*

**86** – A person who contravenes any provision of these Regulations for which no penalty is provided is liable to a penalty not exceeding Two Hundred and Fifty Thousand dollars (USD250,000) issued by the Commission Chief Executive or upon summary conviction imprisonment for a term not exceeding 2 years or to both such penalty and imprisonment.

*Offences*

**87** – Where under the provision of these Regulations a duty is imposed on a person, the onus of proving that all reasonable steps have been taken to fulfill that duty shall lie on the person charged with the breach of duty.

*Burden of proof*

**88** – The Mineral Oils (Safety) Regulations 1963, as amended, is hereby revoked.

*Revocations....*

**89** – In these Regulations, unless the context otherwise requires:

*Interpretation*

“ANSI” means American National Standard Institute

“API” means American Petroleum Institute

“ASME” means the American Society of Mechanical Engineers.

“Company” means the holder of an Oil Prospecting Licence and Oil Mining Lease under the Petroleum Act, Petroleum Exploratory License, Petroleum Prospecting Licence, Petroleum Mining License under the Petroleum Industry Act, marginal field award, licence or permit issued by the Commission as applicable under the authority of the Minister of Petroleum Resources.

“Commission” means Nigerian Upstream Petroleum Regulatory Commission (NUPRC) created under the PIA 2021.

“Commission Chief Executive” means the chief executive officer of the Commission appointed to exercise and perform those powers and duties as assigned to him by these Regulations.

“Competent person” means a person appointed by the Manager under regulation 5 of these Regulations. A Competent Person shall have sufficient training, knowledge and other qualities to manage specialised oil & gas operations and have the authority to take decisions with respect to his area of operations on behalf of the Company.

“Crude oil” means the natural product of wells or seepages of petroleum oil before the oil has been refined or otherwise treated.

“dangerous area” means:-

(a) Any enclosed premises containing a dangerous location together with a space extending not less than fifteen metres measured along the shortest part in air of flammable gases or vapour from any point of escape of those gases from the premises; or

(b) Any open premises containing one or more dangerous locations together with a space extending not less than fifteen metres in all directions from every such dangerous location.

“Dangerous atmosphere” means an atmosphere containing any flammable gas or vapour in a concentration capable of ignition by an open flame or electric spark;

“Dangerous location” means a location where a leakage or emission, of a product which can produce a dangerous atmosphere, is likely to occur;

“Gas” or natural gas” means gas obtained from boreholes or released from crude oil and consisting principally of hydrocarbons.

“Gas free” means an absence of any concentration of combustible or harmful gases in a vessel, container or any area below the prescribed limits;

“IEC” means International Electrotechnical Commission.

“Integrity Operating Windows” are the limits under which a machine can operate safely.

“LEL” means Lower Explosive Limit

“LPG” means hydrocarbon gas components comprising mainly butane, propane or admixtures thereof capable of being condensed and stored in

liquid form in pressure vessels while being gaseous at normal temperature atmospheric pressure;

“Manager” means the person or entity appointed by the Company to be in charge of all operations authorised by the Commission Chief Executive under these Regulations.

“NACE” means the National Association of Corrosion Engineers;

“New Technologies” are defined as technologies that are novel and unproven; technologies that are not new but are yet to be covered by normative or international standards; proven technology that are new to Nigeria environment; and technology with proven individual components but assembled in a novel way.

“NNRA” means the Nigeria Nuclear Regulatory Authority.

“Pressure vessel” means a closed vessel of any capacity subjected or which may be subjected to an internal pressure above atmospheric.

“Restricted area” in an installation or oilfield means an area in which certain precautions are necessary to ensure safety by reason of the possible presence of dangerous atmosphere or because of the operations being carried out therein.

“Technical safety studies” means studies such as HAZOP, SAFOP, HAZID, Human Factor Engineering, SIL studies, Bowtie, PSSR, RAMS, design review, etc. used to establish the safety of a facility.

“TWA” means Time Weighted Average.

“Unrestricted area” in an installation or oil field means an area which is free from hydrocarbon vapours in dangerous or hazardous quantities and in which it is safe to accommodate boilers, open fires or flames, workshop, service buildings or any other similar structures.

“Wells” includes every borehole drilled or sunk or in the course of being drilled or sunk for the purpose of searching for or producing crude oil or natural gas, and where the context so admits, all works adjacent to or connected with the borehole which has been reported to the Commission as abandoned.

**90** – These Regulations may be cited as the Upstream Petroleum Safety Regulations 2022 *Citation*