



**NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA)  
THE ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION ACT  
ENVIRONMENTAL IMPACT ASSESMENT LICENSE**

License No: **NEMA/EIA/PSL/4957**

Application Reference No: **NEMA/EIA/SR/841**

This is to certify that the Environmental Impact Assessment Study Report received from  
**Zarara Oil & Gas Limited.**

**P.O. Box 7745 - 00100, Nairobi.**

submitted to the National Environment Management Authority in accordance with the  
Environmental Impact Assessment & Audit Regulations, 2003 regarding the:  
**Proposed Gas Exploratory Drilling.**

whose objective is to carry on  
**Hydrocarbon exploratory drilling incorporating the drilling rig pad, working area,  
accommodation, waste management, kitchen, power generation & fuel storage facilities,  
water reservoirs, garage area, parking bays, a lay down area for storage of bulk mud and  
cement, dry process materials pipe rack, machinery, associated facilities and amenities.**  
located at  
**Block L4 and L13 in Lamu County.**

has been reviewed and a license is hereby issued for the implementation of the project,  
subject to attached conditions.

Issue Date : **10 July, 2017**

**Signature**

**(Seal)**

**Director-General  
The National Environment  
Management Authority.**

**P. T. O.**



ISO 9001 : 2008 Certified



## **1.0 General Conditions**

- 1.1 This project is for undertaking a hydrocarbon exploratory drilling on block L4 and L13 in Lamu County, at an estimated cost of Kshs 1.590 Billion. The drilling sites will incorporate the drilling rig pad, working area, accommodation facilities, waste management facilities, water reservoirs, kitchen facilities, power generation facilities, fuel storage facilities, a garage area, parking bays, a lay down area for storage of bulk mud and cement, dry process materials pipe rack, machinery, associated facilities and amenities.
- 1.2 The license shall be valid for 24 months (time within which the project shall commence) from the date hereof.
- 1.3 The Director General shall be notified of any transfer, variation or surrender of this license.
- 1.4 Without prejudice to the other conditions of this license, the proponent shall implement and maintain an environmental management system, organizational structure and allocate resources that are sufficient to achieve compliance with the requirements and conditions of this license.
- 1.5 The Authority shall take appropriate action against the proponent in the event of breach of any of the conditions stated herein or any contravention to the Environmental Management and Coordination Act, Cap 387 and regulations therein.
- 1.6 This license shall not be taken as statutory defence against charges of environmental degradation or pollution in respect of any manner of degradation/pollution not specified herein.
- 1.7 The proponent shall ensure that records on conditions of licenses/approval and project monitoring and evaluation shall be kept on the project site for inspection by NEMA's Environmental Inspectors.
- 1.8 The proponent shall submit an Environmental Audit report in the first year of occupation/operations/commissioning to confirm the efficacy and adequacy of the Environmental Management Plan.
- 1.9 The proponent shall submit the final project accounts (final project costs) on completion of construction phase. This should be done prior to project commissioning/operation/occupation.
- 1.10 The proponent shall comply with NEMA's improvement orders throughout the project cycle.

## **2.0 Exploration/Drilling Conditions**

- 2.1 The proponent shall obtain the requisite approvals from the County Government of Lamu, Kenya Wildlife Service, National lands commission, Kenya Maritime Authority, Kenya Marine and Fisheries Research Institute, Kenya Forest Service, the National Museums of Kenya, Kenya Ports Authority, Energy Regulatory Commission, Water Resources Management Authority and all other relevant Authorities prior to commencement of works.
- 2.2 The proponent shall ensure the protection and conservation of any archaeological sites in consultation with the National Museums of Kenya.
- 2.3 The proponent shall put up a project signboard as per the Ministry of Transport and Infrastructure standards showing the NEMA EIA license number among other details.
- 2.4 The proponent shall ensure adequate and appropriate sanitary facilities are provided for the workers during phase and that proper decommissioning of the facilities is carried out once construction is complete.
- 2.5 The proponent shall ensure strict adherence to the provisions of the Environmental (Air Quality) Regulations of 2014.

- 2.6 In the event that the project site borders a river or a stream, the proponent pursuant to Regulation 6(c) of Water Quality Regulation 2006, shall protect the riparian reserve by ensuring that NO development activity is undertaken within the full width of the river or stream to a minimum of six (6) meters and a maximum of 30 meters on the highest recorded flood level.
- 2.7 The proponent shall ensure that the cooling systems employed are suitable with zero ozone depleting potential as per the Environmental Management and Coordination (Controlled substances) Regulations 2007.
- 2.8 The proponent shall ensure that construction is done as per the approved drawings in adherence to the provisions of the Building Code of Kenya of 1968 and supervised by qualified personnel.
- 2.9 The proponent shall design and implement a concise traffic management plan duly approved by the County Engineers, prior to commencement of the project, to avoid traffic congestion.
- 2.10 In the event that material of biological and archaeological significance is encountered, the proponent shall obtain an access permit from NEMA as per the Environmental Management and Coordination (Conservation of Biological Biodiversity Resources, Access to Genetic Resources and Benefit Sharing) Regulations of 2006, as well as notify the National Museums of Kenya.
- 2.11 The proponent shall ensure that their workers do not engage in illegal activities such as logging and poaching.
- 2.12 The proponent shall ensure strict provisions of the Climate Change Act of 2016.
- 2.13 The proponent shall ensure relocation, compensation and restoration of livelihoods for any project affected persons (PAPs) and develop a consultative plan for emerging issues and grievances redress mechanisms (GRM) as shall be prescribed in the Resettlement Action Plan (RAP).
- 2.14 The proponent shall put in place a waste water management plant with the capacity to handle waste water for the facility.
- 2.15 The proponent shall ensure that the drilling fluids are mainly water-based muds and where not applicable, ensure control of contamination of ground and surface water resources when using non-aqueous drilling fluids.
- 2.16 The proponent shall ensure that all drilled materials and debris is collected, re-used and where need be, disposed off as per the Environmental Management and Coordination (Waste Management) Regulations of 2006.
- 2.17 The proponent shall ensure strict adherence to the provisions of the National Construction Act of 2011.
- 2.18 The proponent shall ensure strict adherence to the provisions of Environmental Management and Coordination (Noise and Excessive Vibrations Pollution Control) Regulations of 2009.
- 2.19 The proponent shall ensure strict adherence to the Occupational Safety and Health Act (OSHA), 2007.
- 2.20 The proponent shall ensure that exploration workers are provided with adequate personal protection equipment (PPE), sanitary facilities as well as adequate training.



- 2.2 The proponent shall ensure that the development adheres to zoning specifications issued for development of such a project within the jurisdiction of the Lamu County Government with emphasis on approved land use for the area.
- 2.2 The proponent shall ensure strict adherence to the Environmental Management Plan developed throughout the project cycle.

### **3.0 Operational Conditions**

- 3.1 The proponent shall obtain an authorization from Water Resources Management Authority before and abstracting ground or surface water.
- 3.2 The proponent shall obtain an effluent discharge license from NEMA for the proposed waste water treatment plant within the first year of operation the Environmental Management and Coordination (Water Quality) Regulations of 2006.
- 3.3 The proponent shall ensure that the rain water harvesting facilities are provided to supplement surface and ground water.
- 3.4 The proponent shall put in place a suitable hazardous waste management plan that will ensure all hazardous waste from the sites are properly treated and disposed.
- 3.5 The proponent shall put in place a suitable emergency preparedness and response plan for each of the drilling sites.
- 3.6 The proponent shall ensure that all waste water is disposed as per the standards set out in the Environmental Management and Coordination (Water Quality) Regulations of 2006.
- 3.7 The proponent shall ensure that all drainage facilities are fitted with adequate functional oil water separators and silt traps.
- 3.8 The proponent shall ensure that appropriate and functional efficient air pollution control mechanisms are installed in the facility to control all air emissions.
- 3.9 The proponent shall ensure strict adherence to the provisions of the Environmental (Air Quality) Regulations of 2014.
- 3.10 The proponent shall ensure that all equipment used are well maintained in accordance with the Environmental Management and Coordination (Noise and Excessive Vibration Pollution Control) Regulations of 2009.
- 3.11 The proponent shall ensure that all solid waste is handled in accordance with the Environmental Management and Coordination (Waste Management) Regulations of 2006.
- 3.12 The proponent shall ensure that all workers are well protected and trained as per the Occupational Safety and Health Act (OSHA) of 2007.
- 3.13 The proponent shall comply with the relevant principal laws, by-laws and guidelines issued for development of such a project within the jurisdiction of County Government of Lamu, Ministry of Energy and Petroleum, Ministry of Mining, Ministry of Health, Directorate of Occupational Safety and Health Services, Ministry of Land, Housing and Urban Development, Kenya Wildlife Service, Kenya Forest Authority, Kenya Marine and Fisheries Research Institute, National Construction Authority, Energy Regulatory Commission, Kenya Ports Authority, National Council for Science and Technology, Kenya Rural Roads Authority, Water Resources Management Authority, Kenya Maritime Authority, National Museums of Kenya and relevant Authorities.

- 3.4 The proponent shall ensure that environmental protection facilities or measures to prevent pollution and ecological deterioration such as protection of water resources, noise and dust abatement measures, protection and conservation of flora and fauna, waste management plan, waste water management plan, soil erosion control, community liaison and conflict resolution mechanisms as prescribed in the Environmental Management Plan are designed, constructed and employed simultaneously with the proposed project.

**4.0 Notification Conditions**

- 4.1 The proponent shall seek written approval from the Authority for any operational changes under this license.
- 4.2 The proponent shall ensure that the Authority is notified of any malfunction of any system within 12 hours on the NEMA hotline No. **020 6006041/0786101100** and mitigation measures put in place.
- 4.3 The proponent shall keep records of all pollution incidences and notify the Authority within 24 hours.
- 4.4 The proponent shall notify the Authority in writing of its intent to decommission the facility **three (3) months** in advance.

**5.0 Decommissioning Conditions**

- 5.1 The proponent shall ensure that a decommissioning plan is submitted to the Authority for approval at least three (3) months prior to decommissioning and/or demobilization.
- 5.2 The proponent shall ensure that all pollutants and polluted material is contained and adequate mitigation measures provided during the phase.

The above conditions will ensure environmentally sustainable development and must be complied with.

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