



ENVIRONMENTAL REGULATIONS FOR MIDSTREAM AND DOWNSTREAM PETROLEUM OPERATIONS IN NIGERIA 2022

DRAFT DATE: 10/06/2022

GENERAL

1. (1) These regulations shall apply to all Midstream and Downstream petroleum operations in Nigeria.

(2) The Authority may issue guidelines and directives for the effective implementation of these regulations.

ENVIRONMENTAL MANAGEMENT SYSTEMS **Establishment of Environmental Management system**

- 2 An Operator shall establish an Environmental Management System for its Facility which shall conform to statutory provisions, guidelines and directives as may be issued by the Authority.

Environmental Audits and Reviews

3. An Operator shall conduct environmental audits to facilitate management control of environmental practices and to assess compliance with the Environmental Management System and regulatory requirements.
4. An Operator shall regularly conduct environmental management reviews and verifications to evaluate the status and adequacy of its environmental policy, systems and procedures in relation to environmental issues, regulations and changing circumstances.
5. An Operator shall put in place an Environmental Performance Evaluation Management System in place and periodically report to the Authority in line with statutory provisions and guidelines.

ENVIRONMENTAL STUDIES

Environmental Risk Register (ERR)

6. All proposed Midstream and Downstream projects shall maintain an Environmental Risk Register (ERR) to understand and collate all risks posed by the proposed project to the people and environment, and for the Authority's approval of the project.
7. An Operator shall prepare an ERR for every development and/or upgrade modification of facilities such as:
 - a) Establishment, Construction and/or modification of gas separation, processing, liquefaction, compression, gas to liquid, handling, and storage facilities, Floating storage & offloading (FSO) vessels.
 - b) Establishment, Construction and/or modification of refineries
 - c) Establishment, Construction and/or modification of product depots for the storage of refined or unrefined petroleum products, lube blending plants and retail outlets.
 - d) Establishment, Construction and/or modification of any facility for the production of petrochemicals, gas-based fertilizer and other gas derivative plants.
 - e) Construction and installation of midstream and downstream petroleum liquids and gas transportation pipelines, including delivery and trunk lines.
 - f) Construction and/or Installation of Midstream and Downstream Petroleum Waste Treatment and/or Disposal Facilities, viz: Wastewater Treatment Plant, Waste treatment/recycling /re-use facilities, Engineered Landfills e.t.c.
 - g) Remediation of polluted and contaminated sites
 - h) Dredging activities
 - i) Any other midstream and downstream petroleum activity/facility as may be designated by the Authority.
- a. An application for ERR shall be in the form prescribed by the Authority.
- b. Verified data for risk description and analysis used in an ERR shall be obtained from the Authority at a cost where available or sourced by the project owner under the strict supervision of the Authority using an approved scope.
- c. ERRs shall be valid as long as environmental monitoring and relevant statutory studies are conducted as applicable.

Mandatory Environmental Risk Register Approvals

8. Except where project peculiarities demand further modification as may be determined by the Authority, the following approvals shall be required for midstream and downstream petroleum development projects:
- a) **Project Concept Screening (PCS)** prior to grant of Licence to Establish (LTE).
 - b) **Preliminary Environmental Risk Assessment (PERA)** prior to Licence to Construct (LTC).
 - c) **Environmental Risk Register (ERR)** subject to financial contribution to the Midstream and Downstream Environmental Remediation Fund.
 - d) **Environmental Management Plan (EMP)** shall form the environmental basis for project implementation and issued prior to Licence to Operate (LTO).
- Environmental Evaluation Study (EES)**
9. An EES shall be conducted every Five (5) years from the date of commencement of operations of the facility in line with the **Environmental Guideline and Standards for Midstream and Downstream Operations**, provided that where the Authority considers it expedient based on available information and data, it may direct that an EES be conducted at any time.

Post Impact Assessment (PIA)

10. At the discretion of the Authority, a Post Impact Assessment shall be conducted following the clean-up after any incident such as refined or unrefined petroleum, hazardous materials spillages, explosion etc. has occurred, to ascertain the impact of the incident on the environment with a view to the restoration or remediation of same and for payment of compensation where applicable. The PIA shall commence not more than 1 week from the date the clean-up is certified.

Biological Monitoring of Recipient Medium

11. (i) Biomonitoring of recipient medium shall be conducted every five (5) years with samples taken during the wet and dry season.
- (ii) Where there is a discharge from facility operation into a recipient water body, a biological evaluation of effluent toxicity based on the bioassays shall be conducted every 3 months. Only effluents with demonstrated low risk of lethal and sublethal toxicity action against sensitive species shall be permitted for release into the recipient water body.
 - (iii) Notwithstanding (i) and (ii) above, the Authority may direct a biological monitoring of the recipient medium to be conducted where in its opinion there is a significant impact on the environment.

Special Studies

12. The Authority may, in response to new and emerging environmental issues, direct that special studies be conducted on a project.

Environmental Management Plan (EMP)

13. (i) An Operator who engages in midstream and downstream petroleum operations under the Act, shall submit for approval to the Authority an Environmental Management Plan in respect of all projects. Detailed requirements and contents of the EMP are as provided in "The Environmental Guideline and Standards (TEGS)".
- (ii) An environmental management plan must be in writing in a form approved by the Authority
- (iii) A stand-alone EMP implementation action plan derived from the relevant sections of the ERR/EES report, shall be prepared and signed off by the top management of the project initiator and the Authority.

Requirements for the Conduct of Environmental Studies

14. Only persons accredited by the Authority shall conduct Environmental Study for midstream and downstream industry projects and operations.

MIDSTREAM AND DOWNSTREAM PETROLEUM WASTE MANAGEMENT

15. (i) No wastes generated from Midstream and Downstream projects or operations shall be discharged into the environment without the written approval of the Authority.
- (ii) All wastes generated from Midstream and Downstream projects or operations shall be transported in fit-for-purpose containers or vessels as determined by the Authority.

Produced Formation Water Management

16. (i) It is prohibited to discharge Produced Formation Water (PFW) from midstream and downstream petroleum facilities and plants into the zero-discharge zone without a written approval from the Authority.
- (ii) Notwithstanding (i) above, the preferred disposal options for PFW shall be:
- a) Evacuate to approved well(s) or reservoir(s)
 - b) Other option(s) approved by the Authority for these purposes.

Other Operational Wastes Management

17. (i) There shall be no disposal of oily wastewater, hydrotest water, pigging waste and any other effluent generated from midstream and downstream projects or operations without written consent or approval from the Authority.
- (ii) The Authority shall approve all methods for treatment and disposal of all wastes generated from midstream and downstream operations.
- (iii) All discharges of sanitary wastes generated from midstream and downstream facility and installation shall be treated to comply to the limitation prescribed by the Authority.
- (iv) The ship owners, charterers, and agents shall ensure that samples of clean ballast and treated bilge water from in-coming vessels and stationary operating facilities to be disposed shall meet effluent limitations for ocean ballast and disposal conditions as prescribed by the Authority before discharge in the offshore discharge zone.
- (v) All petroleum storage tanks, and vessel cleaning activities shall be conducted using only automated technology approved by the Authority. The tank cleaning activities shall be carried out only under the supervision of competent persons.
- (vi) Gaseous emissions from Midstream and Downstream oil and gas installations and facilities, comprising of but not limited to particulate matter, dust, methane, hydrocarbons, oxides of carbon, nitrogen and Sulphur oxides, mercury, volatile organic carbons shall not be emitted directly into the environment.

Hazardous Waste Management

18. (i) The Operator shall notify the Authority in writing within one month of the generation of hazardous wastes.
- (ii) The notification in (I) above shall include:
 - a) Material Safety Data Sheet
 - b) Waste Material Data Sheet
 - c) Product Data Sheet
 - d) Chemical Tests or Analysis on the Criteria and Characteristics of hazardous substances or wastes.
 - e) Risk Assessment Report
 - f) Any other document or data as may be required by the Authority

POINT SOURCES

Point Source Registration

19. (i) New and existing industrial effluent and emission discharge point sources at all midstream and downstream facilities and installations shall be registered with the Authority.
- (ii) There shall be no discharge of effluent and emission in the midstream and downstream facilities without valid permit from the Authority.
- (iii) The fees for the Permit shall be as prescribed by this regulation.

EMERGENCY RESPONSE AND POLLUTION ABATEMENT

Spill Contingency Planning

20. An Operator shall submit its current Spill Contingency Plan (SCP) document to the Authority within the first quarter of each calendar year for review. II. The SCP shall be activated annually.

Mystery Spills

21. An Operator shall be responsible for the containment and recovery of any spill discovered within its operational area, whether or not its source is known.

Spill Reporting, Investigation and Clean-up

22. (i) All spills of petroleum liquids and natural gas, chemicals, and remediation products shall be reported to the Authority within 24 hours, in accordance with the Spillage and Notification Reporting format prescribed by the Authority.
- (ii) An operator responsible for a spill shall be required to conduct a Post Impact Assessment Study of any adversely impacted environment within specific timeframe as prescribed by the Authority.
- (iii) An approval by the Authority shall be required for any remediation and rehabilitation method to be used to clean-up and restore impacted site.

Liability & Documentation of Spills

23. (i) A spiller shall be liable for the damage from a spill for which the Operator , shall be responsible. Where more than one spiller is responsible and liable, the liability shall be joint and several.
- (ii) An operator shall keep a register of potentially polluted site(s) or past impacted site(s). Such sites are to be cleaned up or remediated as prescribed by the Authority.

- (iii) Every Operator, shall conduct a geochemical characterization or fingerprinting of its petroleum liquids from all its operations with the supervision of the Authority and submit the results.

Remediation and Restoration of Impacted Area

- 24. (i) The approval of the Authority shall be obtained prior to commencement of any remediation project.
- (ii) The operator shall be responsible for the restorations of any impacted site(s) to its original state.

Use of Spill Management and Remediation Products

- 25. (i) All spill management and remediation products intended for use within Nigeria and its territorial waters shall be subjected to tests and approval by the Authority prior to use or deployment.
- (ii) The use of exogenous microbes in remediation of any spill impacted sites in the Nigerian midstream and downstream industry is prohibited.
- (iii) The use of spill chemicals is prohibited on land, coastal and inland waters.
- (iv) The On-Scene-Commander shall apply to deploy spill chemical for offshore waters spill to the Authority.

Conflict Resolution

- 26. Settlement for damages and compensation arising from midstream and downstream petroleum environmental related issues, shall be determined by the Parties, with the guidance of the Authority. This is without prejudice to the Right of the Parties to explore Alternate Dispute Resolution (ADR) or Litigation.

Decontamination, Decommissioning And Abandonment Of Midstream And Downstream Facilities

- 27. (i) Prior to project commencement, the Operator of midstream and downstream facility shall plan for Decommissioning in line with the Decommissioning and Abandonment Regulations.
- (ii) For existing facility, the Operator shall submit a Decommissioning and Abandonment plan in line with the Decommissioning and Abandonment Regulations.

Processing Fees and Penalties

Processing Fees

28. The following Processing fees shall apply:

FACILITY TYPE	REGULATORY DELIVERABLE	USD(\$)	FREQUENCY
Hydrocarbon Processing Plant and Installations (Blending Plants/LPG /CNG)	Environmental Management Plan	250.00	As per requirement
	Point Source Registration (per Facility or installation)	250.00	5 years
	Chemical formulation/Blending Approval	400.00	3 years
	Project Concept Screening Report, Preliminary Environmental Risk Assessment	200.00	As per requirement
	Environmental Risk Register	400.00	As per requirement
	Post Impact Assessment Study	300.00	As required by the Authority
	Environmental Evaluation Study	300.00	5 years
Depot	Environmental Management Plan	250.00	As per requirement
	Point Source Registration (per Facility or installation)	250.00	5 years
	Project Concept Screening Report/Preliminary Environmental Risk Assessment	200.00	As per requirement
	Environmental Risk Register	400.00	As per requirement
	Post Impact Assessment Study	300.00	As required by the Authority
	Environmental Evaluation Study	300.00	5 years
Engineered Landfill	Environmental Management Plan	250.00	As per requirement
	Point Source Registration (per Facility or installation)	150.00	5 years
	Project Concept Screening Report/Preliminary Environmental Risk Assessment	200.00	As per requirement

	Environmental Risk Register	600.00	As per requirement
	Post Impact Assessment Study	300.00	As per requirement
	Environmental Evaluation Study	300.00	As per requirement
	Permit to Operate	1,250.00	As per requirement
Laboratory	Annual Laboratory Accreditation	500.00	Yearly
	Verification of Oilfield Chemicals/Remediation Products	250.00	3 years
	Annual Laboratory QA/QC- Reference material & Proficiency testing	500.00	Yearly
	Approval to produce culture test organisms for BioMonitoring	500.00	As per requirement
Environment General	Post Clean-Up Certificate	250.00	As per requirement
	Certificate of Sampling (Quarterly Effluent and Groundwater monitoring)	350.00	As per requirement
	Special Studies, Biological Monitoring Studies	200.00	As per requirement
	Measurement Reporting and Verification of GHG Emissions	200.00	As per requirement
	Post Remedial Action Plan	100.00	As per requirement
	Emergency Response Plan, JMP Approval for Alternative crude Evacuation	250.00	As per requirement
	Decommissioning Plan	300.00	As per requirement
	Produced Formation Water disposal permit	400.00	As per requirement
Hydrocarbon Processing Plant and Installations (Refinery/LNG/GTL)	Environmental Management Plan	300.00	As per requirement
	Point Source Registration (per Facility or installation)	400.00	As per requirement
	Project Concept Screening Report/Preliminary Environmental Risk Assessment	250.00	As per requirement
	Environmental Risk Register	500.00	As per requirement
	Post Impact Assessment Study	400.00	As per requirement

	Environmental Evaluation Study	400.00	As per requirement
Retail Outlet/Retail with CNG Add-on	Mandatory Environmental Site Assessment	200.00	As per requirement
	Retail Outlet Site/Facility/Plant Audit	100.00	As per requirement
	Environmental Risk Register	150.00	As per requirement
	Post Impact Assessment Study	100.00	As per requirement
	Environmental Evaluation Study	100.00	As per requirement
Waste Management	Environmental Management Plan	250.00	As per requirement
	Point Source Registration (per Facility or installation)	150.00	As per requirement
	Project Concept Screening Report/Preliminary Environmental Risk Assessment	150.00	As per requirement
	Environmental Risk Register	300.00	As per requirement
	Draft Environmental Evaluation Study/Post Impact Assessment Report Review	150.00	As per requirement
	Operational Permit (per treatment facility/unit)	250.00	As per requirement
	Point Source Registration/Facility	100.00	As per requirement

Penalties

29. Any person who
- Fails to obtain a licence required under these Regulations,
 - Fails to permit an inspection required under these Regulations
 - Makes a false declaration to the Authority or wilfully furnishes information so required which is in any respect false or insufficient; or
 - Fails to comply with any provisions of these Regulations or any directives given or condition of any permit or licence issued under these Regulations.

Is liable to a penalty issued by the Authority and in addition any permit, licence or authorisation granted to that person may be suspended, cancelled or terminated. The penalties are as follows;

PENALTIES		
A. General HSEC Infraction		United States Dollars (\$)
i.	Use of non-accredited contractors to render any HSEC related service in the midstream downstream petroleum oil and gas industry	25,000.00
ii	Failure to respond to Authority on HSEC related issues within stipulated timeframe	100,000.00
iii.	Making false representation to the Authority on any HSEC related issue	25,000.00
B. Environmental Permit		
i.	Failure to register point sources	(250)/point source/day
C. Environmental Studies		
i	No Environmental Screening Study Report to determine Suitability of Project Concepts	25,000.00
ii	Altering Environmental Status prior to requisite Environmental Studies	50,000.00
iii.	Commencing field data gathering without approved Scope of Work	25,000.00
iv	Commencing construction without authorization	100,000.00
v	Failure to conduct requisite or statutory study	150,000.00
vii	Delayed submission of Biological Monitoring report (more than six months after the final field data gathering)	25,000.00
D. Waste Management		
i.	Noncompliance with submission of Waste Inventory Notes and Manifest	10,000/month
ii	Unapproved discharge or disposal of wastes	200,000.00
iii.	Use of containers not fit for purpose in waste collection, storage and transportation	20,000.00
v	Indiscriminate storage of waste within and outside operation areas.	50,000.00
vii	Operating under an expired permit.	100,000.00

viii	Use of unapproved waste management company in management of waste	30,000.00
ix.	Failure to register point sources	(250)/point source/day
	E. Spill Management	
i	Failure to emplace adequate or reasonable measures to avoid spillages	100,000.00
ii	Failure to effect agreed compensation	100,000.00
iii.	Failure to report a spill incident	100,000.00
iv	Late reporting of spill incidents	25,000+ 1,000 for each day of late reporting
v	Making false or incomplete representations regarding the cause or volume of spills	100,000.00
vi	Failure to convene a Joint Investigation Visit (JIV) with the Authority in participation	100,000.00
vii	Failure to clean-up spill impacted site	100,000.00
viii	Failure to conduct post impact assessment	100,000.00
ix	Use of verified spill or remediation products without authorization	50,000.00
x	Use of unverified spill or remediation products	100,000.00
xi	Failure to carry out geochemical characterisation or fingerprinting of petroleum liquid as statutorily required.	100,000.00
	F. Laboratory Services	
i	Use and sales of unverified or unapproved industry chemicals and products	25,000.00
ii	Failure to submit quarterly sales reports by Chemical Vendors, Operator (procurement, consumption & stock/balance) for Chemical regulations and tracking.	20,000.00
iii.	Operating a Laboratory without a valid Authority accreditation	5,000.00
iv	Falsification or alteration of results by Laboratory	5,000.00

	G. HSEC Audit/OSCP Activation Exercise	
i	Postponement of annual HSEC Audit/OSCP Activation Exercise	50,000.00
ii	Failure to facilitate the conduct of the annual HSEC audit and OSCP Activation exercises	100,000.00
iii.	Failure to submit an updated OSCP document within the stipulated period	100,000.00
iv	Failure to close out identified audit issues within a stipulated time.	100,000.00
	H. Remediation	
i	Failure to adequately clean-up and remediate spill impacted sites	200,000.00
ii	Failure to update the Authority on the numbers and status of oil impacted sites on request	100,000.00
iii.	False information on the number and status of impacted or polluted sites	100,000.00
iv	Use of unapproved products and/or technologies for remediation.	10,000.00
v	Failure to obtain statutory certification for cleaned-up/remediated sites.	10,000.00

30. Processing Fees and Penalties in these Regulations may be paid in the Nigerian Naira at the prevailing Central Bank of Nigeria exchange rate.

Permits And Approvals

31. An Operator shall obtain the following Permits and Approvals from the Authority:

- 1) An approval to deploy any remediation technique or technology for restoration of sites impacted due to midstream and downstream oil and gas operations.
- 2) An approval to utilize any oil field chemical or product including but not limited to spill management and remediation products, processing chemicals etc. in the Nigerian Midstream and Downstream Petroleum Industry.

- 3) A Permit to operate any waste management facility that will handle wastes generated from petroleum activities/operations in the Midstream and Downstream Petroleum Industry.
 - 4) An approval for the management of waste generated from the activities/operations in the Nigerian Midstream and Downstream Petroleum Industry.
 - 5) A Waste Disposal Permit for the disposal of solid waste generated from the activities/operations in the Nigerian Midstream and Downstream Petroleum Industry.
 - 6) All other special environmental permits that may be determined by the Authority .
32. All service providers shall be required to undergo an accreditation process that will lead to the issuance of a permit.
33. Service providers that make use of facilities shall be required to undergo an accreditation of their facility and obtain an Operating Permit.

CLIMATE CHANGE Green House Gas (GHG) Management

34. (1) There shall be a mandatory monitoring, estimation of volume and reporting of Green House Gases (GHG) emissions from all oil and gas operations in the Nigerian Midstream and Downstream Petroleum activities/operations.
- (2) The Authority shall issue a Guideline for GHG inventory reporting and mitigation in line with international best practice.

Management of Methane Emission

35. (1) The Operator shall conduct monitoring and control of methane emission from new and existing facilities or projects in which the following activities are performed:
- a) Processing, transportation, and distribution of hydrocarbons and
 - b) storage of unrefined and refined petroleum.
- (2) The Operator must take inventory of equipment and components identified as sources and possible sources of methane emissions and thereafter perform the Leak Detection and Repair (LDAR) programme in all the new and existing facilities as part of methane emission management.
- (3) The Operator shall develop and submit plan for, carbon capture, decarbonization and net-zero targets in operations to the Authority.

STATUTORY REPORTING

General Obligations

36. (1) An Operator shall periodically submit applicable environmental reports in line with statutory provisions, Guidelines and requirements as may be determined by the Authority within the timeframe stipulated.

(2) An Operator shall submit information requested by the Authority in the prescribed form within the stipulated time frame.

LABORATORY OPERATIONS IN THE MIDSTREAM AND DOWNSTREAM PETROLEUM INDUSTRY

Accreditation

37. All laboratories in the midstream and downstream petroleum industry shall be accredited by the Authority. (2) The Authority shall conduct on all laboratories regular analytical performance evaluations by means of reference samples, proficiency testing programmes and inter-laboratory tests .

INDUSTRY CHEMICAL AND PRODUCT CERTIFICATION

Certification of Industry Chemicals and Products

38. (1) All Industry chemicals and products intended for use in the Nigerian midstream and downstream petroleum industry shall be screened to ascertain their hazard and risk potentials through Safety Data Sheet evaluation, toxicity, relevant tests and any other relevant investigation as may be prescribed by the Authority.

(2) The satisfactory outcome of such tests or investigations shall determine the approvability or otherwise of such chemicals or products.

Toxicity Tests of Industry Chemicals and Products

39. (1) All chemicals or products identified to be toxic shall be subjected to toxicity test on standard aquatic organisms under Nigerian environmental conditions.

(2) The tests and investigations on oilfield chemicals or products shall be conducted by laboratory facilities approved by the Authority.

(3) The procedure for the relevant test on chemicals under Nigerian environmental conditions shall be as approved by the Authority.

(4) The Operator shall seek the consent of the Authority and obtain an approval prior to deployment of any oilfield chemical or product.

(5) The Operator shall submit to the Authority for approval their oilfield chemicals management programme for all new and existing facilities.

(6) Operators and chemical vendors shall submit inventories of oilfield chemicals deployed in their operations. The frequency of the submission shall be as determined by the Authority.

(7)The results of tests (e.g., bottles test) and other production chemistry investigations on use of oilfield chemicals shall be submitted to the Authority for review and at the discretion of the Authority , such tests shall be witnessed by staff of the Authority.

INTERPRETATION

40. In these Regulations:

Chemical Vendors are entities, companies, organization licenced by the Authority or Commission to sell chemical utilized for any process in the oil and gas value chain.

'CNG' means Compressed Natural Gas

Emergency Response Plan' means an organized and predetermined course of actions to be pursued in the event of an emergency (spill or leakage of oil, gas, chemicals/hazardous substances, fire, man overboard, loss of containment, natural disaster, injury, piracy, security breach e.t.c). This orderly arrangement of events to effectively manage the incident shall be compiled in a document by all Operator and/or owners. In this context, anywhere oil is mentioned in the regulations, it shall be deemed to also mean gas, chemicals and hazardous substances where applicable.

Exogenous microbes means any substance or chemical that is intended for use in the Nigerian oil and gas industry for remediation of hydrocarbon impacted sites whose origin is foreign and contains microbes.

Facility means licenced operation containing the source of the chemical of concern where a release has occurred.

Facility Owner means the Operator and/or owner of a facility.

'GTL' means Gas to Liquid

'LNG' means Liquified Natural Gas

'LPG' means Liquified Petroleum Gas

'NOx' means oxides of nitrogen

On Scene Commander is the person responsible for coordinating (organizing and directing) all actions and parties during an emergency response situation

Operator means the holder of a licence to operate a facility.

Solid waste means all compacted waste generated from midstream and downstream facilities including but not limited to produced-sand, treated organic residues from primary oily wastewater treatment plant, spent catalyst, rust, ash, general refuse, and sludges.

Special studies refer to studies that are initiated based on the need to solve peculiar environmental challenge such as fate and effect studies, dispersion modelling and environmental risk assessment.

Spill means the accidental or intentional release of unrefined or refined petroleum, industry chemicals or products into the environment

Spiller means the Operator and/or owner of a facility from which hydrocarbon was released into the environment.

Waste Generator is an Operator of a facility or gas servicing facility who during its activities/operations, generates a waste stream(s) e.g. water, gas, sand/soil, oil, solids (hazardous and non-hazardous) etc.

Short Title

41. These Regulations may be cited as the Environmental Regulations for Midstream and Downstream Operations, 2022.