



DEPARTMENT OF
PETROLEUM RESOURCES
...Petroleum Regulatory Agency Of Nigeria

Applicable to all Oil & Gas Operators

SAFETY CASE GUIDELINES FOR OIL AND GAS FACILITIES IN NIGERIA

Code: DPR GUIDE 0036 – 2020

Revision Date: 2nd October 2020

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DEPARTMENT OF PETROLEUM RESOURCES

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1 INTRODUCTION

1.1 Background

The inherent risks posed by and to oil and gas installations cannot be understated considering the volatility and flammability of hydrocarbons, and extreme operational process conditions subjected, in addition to harsh environments where oil and gas exploration, production, processing and transportation and other activities occur.

Findings from analysis of the root causes of several incidents that have occurred worldwide demonstrate a trend of accidents that are usually preventable - as a result, Regulators worldwide are keen to catalogue lessons learnt and formulate policies and guidelines that are designed to prevent reoccurrence. An important fallout from the public enquiry of the 1988 Piper Alpha incident were the series of safety improvements, which led to the establishment of the Safety Case regime. It requires an Operator/Facility owner provides details of health and safety management and major accident hazard control systems on the installation, including identifying risks and reducing them as low as reasonably practicable (ALARP), providing a temporary safe refuge on board and making provisions for safe evacuation and rescue, while making provisions for periodic reviews of such details.

Against this backdrop, the DPR instituted the Safety Case regime as a method to ensure that proponents are not only aware of hazards in their operations but also are statutorily obligated to have adequate and demonstrable mitigations and control measures in place to reduce the risk of accident occurrence to as low as reasonably practicable (ALARP).

1.2 Purpose

This document has been prepared to provide guidance to the proponents of Safety Case (Operators/Facility owners) on the preparation, submission, assessment, approval, validation and revision of Safety Cases for oil and gas facilities in Nigeria. These Guidelines provide detailed guidance on the intent of “Safety Case” for facilities in Nigeria, explains the major administrative processes associated with submission, assessment, approval, validation and revision of Safety Cases.

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1.3 Scope

This guideline is applicable to the development of Safety Cases at different phases (Design, Operations and Decommissioning) in the life cycle of an oil and gas facility in Nigeria. Guidance is given to the Nigerian oil and gas industry Operators on the issues that should be addressed in Safety Cases for the different phases of operation covering the intent of Regulations 44 & 45 of the *Petroleum (Drilling and Production) Regulation 1969*, and provisions of the *Mineral Oils (Safety) Regulation 1963 and its amendments* and other applicable laws regarding Safety Case in the industry.

2 DEFINITION AND PURPOSE OF SAFETY CASE

A Safety Case is a structured argument, supported by evidence, put forward by the Proponents (Operators/Facility Owners) to assure themselves and to demonstrate to the Industry Regulator (DPR) and other-stakeholders, that a facility, throughout its life cycle is acceptably safe for a specific application in a specific operating environment.

Some important features of a Safety Case are:

- i. It displays the facility layout and process description;
- ii. It explains in detail, the technical safety studies that were conducted;
- iii. It identifies a comprehensive list of hazards and risks in a facility;
- iv. It describes how the risks are controlled;
- v. It identifies all safety critical aspects of a facility including people, processes and procedures, both technical & managerial with respect to major accident hazards;
- vi. It describes the safety management system in place to ensure that controls are effectively and consistently applied; and
- vii. It demonstrates top management commitment and responsibilities in ensuring safe operations.

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The purpose of Safety Case can be further described as follows:

- i. To ensure that adequate and documented systems are in place to prevent the occurrence of major incidents, high potential events and near misses at the facility, and to minimise the effects of major incidents that might occur at the facility. The Operator is responsible for eliminating the risk of a major incident or, if elimination is not reasonably practicable, ensuring that the risk reduction mechanism is followed to minimise the risk to ALARP.
- ii. To ensure that the Safety Case draws from safety-related studies and reports related to hazard identification, risk assessment, risk control and emergency response planning. These will demonstrate that the hazards and risks associated with major incidents are fully understood and that control measures in place are adequate, monitored and maintained.
- iii. To hold the Operator accountable and review the assumptions on which the Operator’s risk minimisation strategy is based. Also, to ensure Operators develop initiatives to further reduce the risks identified. Furthermore, periodic reviews and site inspections maybe conducted by the DPR to verify that the Operator of a facility meets the objectives and standards required in the Safety Case.

Overall, a well-structured and coherent Safety Case submission will facilitate a proponent’s ability to demonstrate to all stakeholders that they have a clear understanding of all credible hazards and risks associated with their facility/operation, and that the hazards that could not be eliminated are effectively under control.

3 TYPES OF SAFETY CASES

In the Nigerian oil and gas industry, the Safety Cases required by the DPR at different stages in the life cycle of facilities are illustrated in figure 3.1. below. The details of submission timeline are shown in section 5.2 of these Guidelines.

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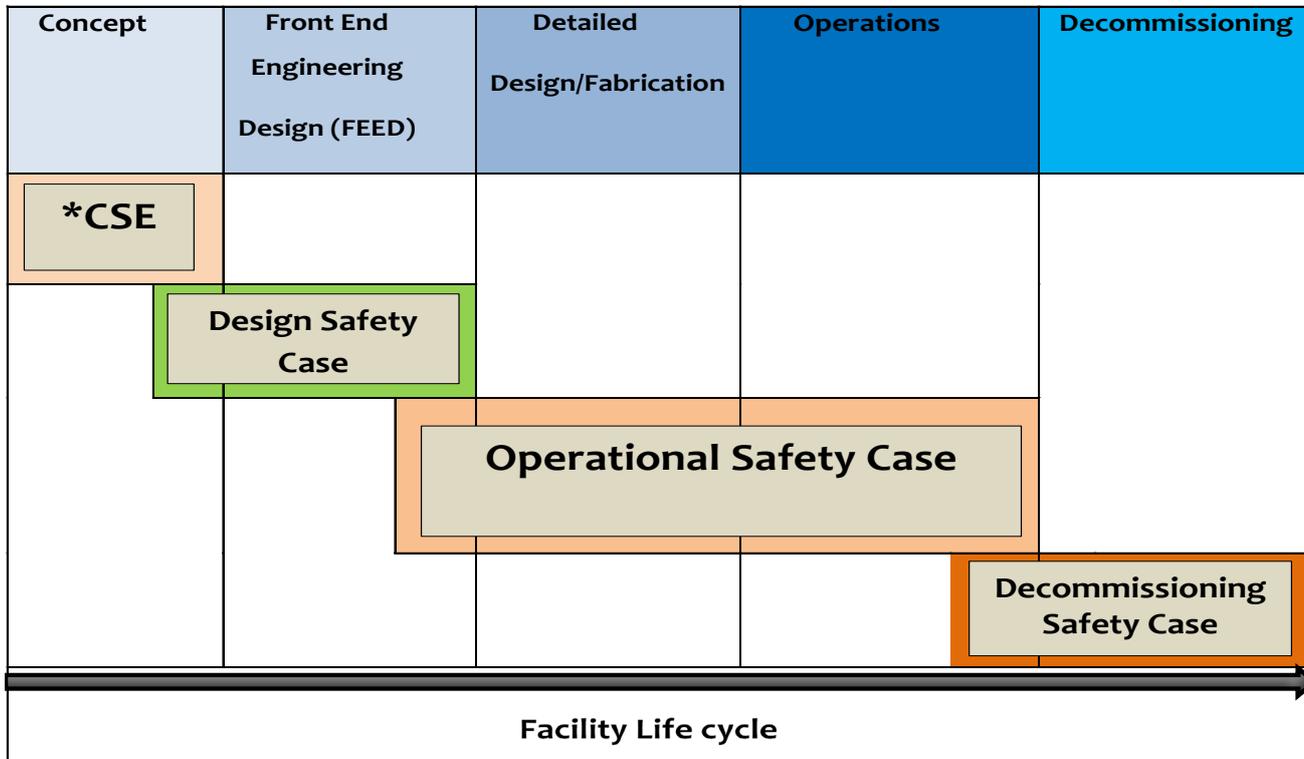


Figure 1: Types of Safety Cases

4 SAFETY CASE CONTENT

(Applicable to Design, Operations and Decommissioning Safety Cases)

A facility’s Safety Case shall evidentially describe and/or broadly demonstrate, at a minimum, the following:

- i. Introductory information
- ii. Signed Statement of Fitness

¹ Concept Safety Evaluation (CSE) is the set of exercise(s)/assessment(s) carried out during the concept selection stage of a project to comparatively assess and analyse the HSE risks associated with all the proposed facility development options, with the aim of providing safety risks and justifications for the selected concept option and then, demonstrate that the risk and safety considerations of the selected concept is ALARP.

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- iii. Facility and Operations Description
- iv. Formal Safety Assessments Conducted
- v. Safety Management System
- vi. Register of Hazards/Risks and their corresponding controls
- vii. Remedial Action Plan
- viii. Other relevant and supporting information

Note:

- i. The preparation and documentation of a Safety Case need not necessarily follow the order given above. The Operator/Facility owner is at liberty to follow a preferred format, provided the minimum expectation reflected by the list above is duly covered and contents are in line with the intent and objectives of a Safety Case.
- ii. The engagement of the services of a third-party consultant in the preparation of Safety Case as may be desired by the Operator/Facility owner shall not alter or undermine the responsibility of the Operator/Facility owner as contained in the Nigeria oil and gas legal framework.

4.1 Introductory Information

This is generally the title page and other preliminary information, or details used by the Safety Case proponent to provide proper description of the submitted Safety Case dossier to enhance readability and review of the submitted document. Some of the information in this section should include but limited to: table of content and document structure, definition of terms, revision schedule, scope, purpose and objectives of the Safety Case, background, summary, reference documents, list of abbreviation, list of figures, list of tables, list of appendices, document control and accountability information and other relevant document descriptive information.

4.2 Statement of Fitness

The statement of fitness is an attestation and commitment by the Safety Case proponent’s top level management that all the contents of the Safety Case are true and compliant with standards

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and regulations, that the Safety Case have been reviewed and found worthy to demonstrate that the facility is safe and remains safe for the intention of the applicable safety case and that the Safety Case owner takes full responsibility for its implementation, address of shortfalls and commit to continuously improve the safety of the facility.

Note: The DPR shall not approve a Safety Case if the Statement of Fitness is not signed by the case owner and/or the case custodian which must be “Competent Persons” defined by the Operator/Facility owner.

4.3 Facility and Operations Description

The facility and operations description section of the Safety Case should incorporate all the information about the facility used as the basis for the Formal Safety Assessment and the Safety Management System of the facility. In the preparation of the facility description section, the proponent of the Safety Case shall ensure that it captures evidential information covering the accurate description of the facility, its purpose; layout and all operations within and related to the facility; geographical location with coordinates, full address, relevant proximate landmarks, OPL/OML information; topographical data; meteorological data activities (current and planned) that are covered by the Safety Case.

In addition, the facility and operations description should include: the process of how fluids, hydrocarbon gases and hazardous chemicals are treated, converted, stored and/or processed from the inlet(s) to the outlet(s) (including the final point at which it leaves the facility); the hydrocarbon evacuation and or transportation method adopted; the Process Flow Diagrams (PFDs) of the facility; interaction between the facility and its surroundings including the natural environment and other facilities; industries or activities that are (or maybe) present; design and operating philosophies and operating envelopes; use of novel technology or materials, safety design features to manage major accident hazards; emergency management etc.

The information about the facility supplied in the Safety Case should be sufficient to demonstrate that the design and operating philosophy is consistent with the Safety Management System and

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the assumptions and outputs of the Formal Safety Assessment (FSA). Proper references should be made to all standards, guidelines and regulations being applied in the design, construction, installation, modification, operation and decommissioning of the facility.

4.4 Formal Safety Assessment

The Formal Safety Assessment (FSA) section explains all the studies that were conducted to identify the hazards and risks highlighted during the design phase as well as those associated with the operation of the facility and how the identified hazards and risks are eliminated, reduced, or otherwise mitigated to “as low as reasonably practicable” (ALARP). The purpose is to demonstrate that all reasonably practicable controls are in place to eliminate and reduce the risk from identified MAHs to ALARP, including all reasonably practicable steps taken to ensure the safety of personnel, the integrity of the mitigation barriers (including under accident conditions), and adequate facilities and measures in place to facilitate the evacuation of personnel should there be an emergency or occurrence of a MAH.

In preparation of the FSA, the proponent is required to demonstrate that exposure of personnel on the facility to hazards has been eliminated, controlled, minimised, through appropriate, systematic and transparent analysis and assessment, and through implementation of the findings of those assessments. The scope of work for identification of hazards and assessment of risks must be consistent with the operating envelope for all activities and facilities. The FSA must address risk to people in and around the facility due to MAHs. For a new facility or modification to an existing facility, the Formal Safety Assessment process should start at the concept selection stage and continue as appropriate during and throughout the design process and then into operations. The hazard identification process must be thorough, and the level of details shall be appropriate and commensurate with the magnitude of the hazards involved. The results/recommendations should be systematically recorded, and appropriate quality assurance procedures should be adopted in the document.

The processes used for identification of hazards must consider the operating history of the facility, or similar facilities, owned by the facility operator or others. The processes used for identification

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of hazards must foster creative thinking about possible hazards that have not previously been experienced. Assumptions made in the Formal Safety Assessment must be documented, reasonably justified, reviewed by appropriate personnel, properly referenced, with limitations known and tracked to identify any change(s). The FSA process should also include identification of risks and appropriate safeguards relevant to each hazard.

The assessment of risk from scenarios must consider the effectiveness, availability and viability of control measures, including the potential for escalation of the scenario, detailing the range of additional risk control measures considered and the reasons for implementation or rejection of each and the risk due to evacuation, escape and rescue (EER).

Note: It is expected that the proponent of the Safety Case adopts FSA models, approaches and methodologies that are descriptive (such as Bow-Tie etc.) to easily facilitate workforce understanding of Hazard management and their own role in it.

4.4.1 Major Accident Hazards (MAHs)

The proponent shall demonstrate, with regards to Major Accident Hazards (MAHs), that all reasonably practicable controls have been identified to ensure that risk is “as low as reasonably practicable” (ALARP). MAHs are threats or hazards which, if released could potentially result in:

- i. Fatalities or serious injuries to personnel;
- ii. Fatalities or serious injuries to any member of the public;
- iii. Major property and asset damage (fire/explosion, etc.);
- iv. Considerable impact to the environment;
- v. Impact to community(s) (displaced, inconvenienced, etc.),
- vi. Damage to business reputation, and;
- vii. Other undesired consequences as may be determined by the Proponents and Stakeholders.

4.4.2 Formal Safety Assessment (FSA) Team Composition

In order to maximise opportunities for identification, control of hazards and ensure adequate technical submissions, operational experience and expert opinions are incorporated in the risk

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and hazards assessment of the facility, adequate involvement of appropriate and relevant personnel is a mandatory requirement for FSA.

The assessment team shall comprise:

- i. DPR representatives;
- ii. Operations personnel;
- iii. Maintenance and Inspections personnel;
- iv. Instrumentation personnel;
- v. HSE personnel;
- vi. Project team (if applicable);
- vii. Other Subject Matter Experts (SMEs) as applicable.

Note:

- i. The lead personnel and facilitator for any FSA are required to possess requisite certifications, demonstrable knowledge and competence in the applicable Industry Codes and Standards for the conduct of such FSA.
- ii. Participation of DPR representatives in the exercises shall be mandatory.
- iii. Pre-read documents of any FSA workshop shall be forwarded to the DPR at least four (4) weeks before the commencement of such workshop.

4.4.3 Risk Acceptance Criteria and Demonstration of ALARP

In the context of MAH risk as addressed in the FSA, the demonstration that risk is as low as reasonably practicable (ALARP) is based on the following concepts:

- i. There is a maximum level of risk that is intolerable;
- ii. There is a low (but non-zero) level of risk that is broadly acceptable;
- iii. Between these two (2) risk levels, there is a grey area where the risk may be accepted by Operator/Facility owner provided that the risk has been shown to be as low as reasonably practicable. This is commonly called the ALARP region.

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In the ALARP region, principles of continual improvement apply. This means that risk reduction measures should be adopted until the point where hazards of operating the difficulty and cost of adoption exceeds their benefit.

Furthermore, where the risk level is close to the tolerability/acceptance criteria, control measures should be adopted unless their difficulty and cost grossly outweighed their benefit. Other than in exceptional circumstances, it would be expected that all control measures set out in industry standards are adopted. The FSA must detail the risk acceptance criteria chosen, the rationale for selection and how the criteria would to be used.

4.4.4 Safety Critical Elements (SCEs)

In demonstrating that the risks associated with the identified MAHs have been reduced to ALARP levels, it is essential that facility owners clearly identify the Safety Critical Elements (SCEs) associated with each MAH.

In the context of these Guidelines, SCEs are parts of the facility, including physical equipment as well as software, which are designed to prevent or limit the effects of a major accident, or the failure of which will result in a major accident. Essentially, a Safety Case should identify SCEs that will help mitigate the consequences of MAHs as outlined in section 4.4.1 of these Guidelines. The matrix of MAHs and associated SCEs must be accompanied with the required performance standards for the SCEs, so as to assure the Safety Case proponent, as well as the DPR, that all identified SCEs will continue to perform as designed, whenever called upon do to so. The Department’s validation and verification exercises, as captured in section 5.4 of these Guidelines, will involve ascertaining that SCEs identified in the Safety Case are in place, well maintained and functional.

4.5 Safety Management Systems

Safety Management System (SMS) is the section in which an Operator/Facility owner describes the safety policy of the company, references and integrates or shows the integration of all safe and operating procedures, roles, responsibilities and demonstrates how all risks associated with

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the hazards of operating the facility are managed for continuous improvement throughout its life cycle.

In the preparation of the SMS, the scope should be consistent with the operating envelope for all activities and facilities as described in the Facility Description. This should include the descriptions of risk assessment processes other than the FSA such as Job Safety/Hazard Analysis, Toolbox meetings etc. The Operator is to explicitly explain the systems that are in place or planned, to ensure that the facility is operated optimally in order to prevent all hazards from escalating to accidents as well as to address risk to people, environment on or near the facility, asset and reputation. The SMS of any Operator/Facility owner for its facility is expected to be comprehensive and integrated such that it covers the policy, objectives, planning, implementation, monitoring, review and any other element of the SMS. The SMS should detail the roles, responsibilities and reporting structures affecting safety. Involvement of appropriate and competent people in the development and implementation of the Safety Management System and changes to the system must also be shown. The SMS is expected to provide as applicable, evidential information, procedures, guidelines, structures, philosophies, etc. that covers at a minimum, the following:

- i. Appropriate quality assurance/quality control procedures that would be used in managing SMS documentation, information, management of change, including physical changes, staffing, organisational and operational changes, etc. These processes shall ensure that the integrity of the facility is maintained and incorporated in design, construction, installation, and possible modification of the facility.
- ii. The demonstration that the number of personnel on the facility is adequate for the range of tasks that may be required to be performed simultaneously on the facility, both in normal operation and in an emergency. This should include description of the provisions made to ensure that each employee has the appropriate skills, training and ability for the range of tasks that he or she may reasonably be required to perform, including actions expected in an emergency and as well as the use of the permit to work system.

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- iii. The SMS must include provision and/or references for safe operating procedures, inspection, maintenance and testing of equipment and hardware used to control all risks (not just MAHs), safety issues arising from contractors and suppliers.
- iv. Description of the operational and emergency communications systems between the facility and other installations, vessels, aircrafts and other facilities within proximity. Also included, should be processes and commands for responding to an emergency on the facility and the provisions for activating the emergency procedures.
- v. Clearly defined responsibilities for authorisation and supervision of operations such as welding and other operations such as hot work, cold work, electrical work, entry and work in confined spaces, working over water, diving operations etc. and documented permit to work system.
- vi. Systems for monitoring and evaluating the effects of the working environment on the health of the workforce and processes for control of drugs, controlled substances and intoxicants on the facility.
- vii. Incident Reporting and Management and the processes that are used to continually and systematically identify and address facilities deficiencies and incorporating lesson learnt.

4.6 Register of Hazards/Risks and their Corresponding Controls

A comprehensive register shall be attached to the Safety Case detailing all credible hazards and risks identified and envisaged by the Formal Safety Assessment. The register should indicate the control/mitigation and recovery measures provided for each of the identified credible hazards, estimated risk level, opportunities for improvement and links to the safety management system. Major Accident Hazards and their corresponding Safety Critical Elements (SCEs) should form a part of the register.

4.7 Remedial Action Plan

The proponent shall include in the Safety Case, a comprehensive remedial action plan which describes the plan, responsible party(ies), and also stipulated timelines set out to resolve and implement any/all outstanding action item(s), improvement or shortfalls that have been identified

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at different stages in the life of the facility. The collective aim of this section is to improve safety in the operations of the facility, as failure to close out identified action(s) may weaken the full and successful implementation of the Safety Case.

4.8 Other Relevant and Supporting Information

This generally includes information, documents, studies, etc., which is believed to enhance the arguments in the Safety Case to further demonstrate the intent of the Safety Case and safe operations of a facility. Such information may include the following:

- i. elaboration of key evidence(s) referenced or not referenced within the Safety Case
- ii. details and results/recommendations of safety studies conducted
- iii. important appendices; and
- iv. other information which enhance or demonstrate safety that may not have been integrated in the preceding or other sections.
- v. Concluding and further assurance statements etc.

5 SUBMISSION AND APPROVAL PROCEDURE

5.1 Submission Overview

Safety Case submission to the DPR and obtainment of **approval of same from DPR** is a requirement for all installations operating, to be operated or to be decommissioned in the Nigerian oil and gas Industry. Therefore, it constitutes a non-compliance for any Operator/Facility owner in Nigeria to complete design, commence operation, continue operation, undergo major modification/upgrade/debottlenecking etc. or commence decommissioning of any oil and gas facility in Nigeria without an applicable Safety Case that is approved by the DPR.

In making the submission for the Safety Case, section 4 of this guideline only serves as a guide. The proponent has the flexibility of preparing the Safety Case as it applies to their facility. However, the Operator/Facility owner is to ensure that the Safety Case contains detailed evidential information, appropriate facility specification (as opposed to generic information), specific hazards and risks of the facility. Also, the proponent through the Safety Case is to relate

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and demonstrate that the risks identified are at ALARP to enable the DPR make an informed decision on acceptance and approval. Safety Case submitted to the Department shall be reviewed extensively with the aim of issuing an approval to the proponent.

Once an approval is issued, the proponent shall have a duty to ensure that the installation is designed, operated and decommissioned in conformity with applicable regulations, guidelines, standards, management systems and other arrangements described in the Safety Case. However, this approval is usually subjected to conditions. Deviations from these conditions will invalidate the Safety Case approval. It is pertinent to note that notwithstanding the approval of a Safety Case by the DPR, a proponent would not be exonerated from any incident/accident that may arise from the operations of the facility.

5.2 Document Submission

In seeking for the approval of a Safety Case for any facility, the Operator/Facility owner is required to submit the Safety Case in hard/soft copy(ies) and evidence of payment of prescribed fees with a cover letter addressed to the Director/CEO, Department of Petroleum Resources. The submission of the Safety Case for approval shall be consistent with the following stages of a project/facility lifecycle:

- i. The Concept Safety Evaluation report shall be submitted as applicable at the end of the concept selection evaluation exercise and alongside the submission of the Field Development Plan (FDP);
- ii. The Design Safety Case shall be submitted separately by the Operator/Facility owner at the end of Front-End Engineering Design (FEED) and prior to Detailed Engineering Design (DED). This submission shall form part of the basis for DPR approval of FEED. Addendum(s) and update(s) may be submitted subsequently;
- iii. The Operations Safety Case that shall be submitted by the Operator/Facility owner should be expected anytime between the end of Detailed Engineering Design (DED) and during fabrication/construction phase. Note that the submitted Safety Case shall be reviewed

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and updated prior to issuance of approval to introduce hydrocarbon/approval for commissioning of the facility. During the operations phase, the Safety Case must be revalidated and submitted every five (5) years. Other conditions that may warrant the revalidation of a Safety Case or, at the minimum, the submission of an addendum to the Safety Case are discussed in section 6;

- iv. The Decommissioning Safety Case must be submitted by the Operator/Facility owner before decommissioning activities commences.

5.3 Safety Case Review and Approval

After the submission of a Safety Case, the Department shall review its content to ascertain the extent of compliance with the intent of a Safety Case in demonstrating that a facility is safe to operate or continue to operate or decommission. The Safety Case is expected to evidentially and properly demonstrate the following, that:

- i. the facility description, Safety Management System (SMS) and Formal Safety Assessment (FSA) are appropriate and facility specific such that they effectively show consultation with and participation of relevant employees, regulator and stakeholders as appropriate in its development.
- ii. it reflects accurately the actual state of operational systems on the facility and that employees understand the risks to which they are exposed, the measures for risk control and mitigation and their role in it.
- iii. the equipment on the facility that relates to, or may affect safety, is fit for purpose during normal operations and is fit for use in an emergency to the extent intended.
- iv. risk has been reduced to as low as reasonably practicable, through proper mitigation and remedial measures, such that the performance standards required for the Safety Management System as a whole and for each critical control (either SCEs) and for the systems in place to ensure that the actual performance meets the defined standard.
- v. effective change management is integrated into the overall management system, to ensure the Safety Case remains valid.

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- vi. visible commitment of Operator/Facility owner to safety improvement including appropriate safety leadership behaviours, articulation of company values towards safety, communication and management of lessons learnt and safety issues raised, to employees and contractors.

The approval of the Safety Case by the Department would be based on the extent of satisfaction with the above expectations. Otherwise, the Department may communicate further steps which are required for the proponent to obtain an approval for the Safety Case. The proponent is to ensure that all issues raised and communicated by the Department during the process of the Safety Case review are implemented and closed out in time, and resubmission of the Safety Case may be required.

5.3.1 Safety Case Joint Review

The outcome of the processing of Safety Case submission by an Operator or Facility owner may result to a need for a Joint review/workshop. The workshop would offer the proponent an opportunity to present its Safety Case argument, demonstrate that the Safety Case justifies the adequacy of safety provisions in the facility and provide clarifications to the Department on grey areas within the Safety Case dossier, as may be necessary.

The team composition for the review/workshop exercise shall comprise at a minimum, DPR representative(s), Operations personnel, relevant discipline engineers (e.g. Process Engineers), HSE personnel, Project Development team (where applicable) and 3rd party consultants/company (if applicable).

The Operator may at the joint review/workshop:

- i. make a detailed presentation on the Safety Case;
- ii. show detailed Process Flow Diagrams and facility layout indicating all emergency evacuation routes;
- iii. showcase the Safety Case for the facility in order to provide clarification where required;

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- iv. show other relevant supporting documents/studies/information that enhance an Operator’s argument or intent of the Safety Case; and
- v. provide a summary report of FSAs carried out for the facility.

The overall aim is to assure the DPR that the Safety Case dossier satisfies the required expectations. The outcome of the Safety Case review/joint review may become basis for the issuance of Safety Case approval to the Operator. Otherwise, the Department may communicate further steps which would be required for the proponent to close out to obtain an approval.

Note: Safety Case proponents can also request for a joint review session with the DPR while making Safety Case submission in line with section 5.2 of these Guidelines.

5.4 Safety Case Validation

The intent of Safety Case validation and verification is to physically confirm that the design, installation, modification or operation of a facility (including instrumentation, process layout and process control systems) is fit for purpose or remains fit for purpose and consistent with the Safety Management System and Formal Safety Assessments of the Safety Case. Furthermore, the validation and verification visit offers the opportunity for the confirmation of safety controls and performance standards for safety critical elements, review of Safety Case remedial actions, determination of the extent of workforce involvement and their awareness of the Safety Case and ascertaining all the other claims made by proponent of a Safety Case in the dossier.

The outcome of the validation and verification visit by the Department may become basis for the issuance of Safety Case approval to the Operator/Facility owner. Otherwise the Department may communicate further steps which may be required for Operator/Facility owner to obtain approval.

Note: Notwithstanding the approval given to an Operator/Facility owner with respect to Safety Case submission, validation and verification visits shall be conducted as applicable during the life cycle of the facility.

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6 SAFETY CASE REVISION

Safety Case is intended to be a living document, kept up to date and revised as necessary during the facility life cycle. Overall, the Operator should ensure that the current Safety Case remains up to date and reflects the operational reality of the installation.

The proponent is required to revise an approved Safety Case and submit for approval, an addendum to the Safety Case in the event of any of the following:

- i. If there are new developments, modification or changes that alter or introduce Major Accident Hazard, affect the safety management system, standards for design or operation or system for identifying or evaluating risks of the facility.
- ii. If the Operator proposes to carry out activities at the facility that are different from those addressed by the Safety Case that is approved. **Note:** the difference does not have to be significant.
- iii. If the Operator proposes to decommission or otherwise modify the facility in a way that is not already addressed by the Safety Case that is in force;
- iv. If a major incident or accident happens and;
- v. Any other conditions as may be determined by the DPR.

In any case, the Operator shall be required to resubmit and obtain approval of a revised Safety Case of each facility every five (5) years. The Operator/Facility owner should ensure that such five-yearly periodic resubmission made to the DPR captures all necessary updates on the facility description, safety management system, revalidation of relevant formal safety assessments conducted for the facility, incorporation of all changes as a result of any of items 6 (i – v) of these Guidelines and any addendum made within the five years period under consideration.

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7 SANCTIONS

This document provides the requirements for complying with the Safety Case Guideline governing the Oil and Gas Industry in Nigeria. Non-compliance with the requirements stated in these Guidelines shall be deemed as violations to relevant sections of the Petroleum Act 1969 as amended, Petroleum (Drilling and Production) Regulations 1969 & subsequent amendments and Mineral Oils (Safety) Regulation 1963 and its amendments, regarding the duties of an Operator, Manager or Employee.

These violations may summarily lead to penalties/fines to Operators/Facility owners and/or revocation of associated Leases, Licenses and Permits as may be determined by the Director/CEO, Department of Petroleum Resources.

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8 GLOSSARY

Abbreviations, terms and references used in this document are explained hereunder:

Abbreviation	Meaning
ALARP	As Low As Reasonably Practicable
CSE	Concept Safety Evaluation
DED	Detailed Engineering Design
DPR	Department of Petroleum Resources
EER	Escape, Evacuation and Rescue
FDP	Field Development Plan
FEED	Front End Engineering Design
FSA	Formal Safety Assessment
HSE	Health, Safety and Environment
MAH	Major Accident Hazards
SME	Subject Matter Expert
SMS	Safety Management System

Approved by			
<p align="center">Engr. Sarki Auwalu, MNSE (Director/CEO, Department of Petroleum Resources)</p>			
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