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1.0 Purpose

This Project Execution Plan (PEP) sets out how the Posit Field Development Project will be executed. It documents the key strategic decisions and objectives of the opportunity; work scope, specific targets and milestones that must be achieved. It also identifies critical issues, interfaces and mitigation processes that must be followed by the project team members for top quartile project delivery. The PEP also provides the basis against which changes can be identified and evaluated during project development.

2.0 Project Background

The Posit Field Development project is a planned phased development to supply gas and grow oil production. Posit field development is to be executed in two tranches. Tranche-1 is gas development while Tranche-2 is oil and gas development that requires appraisal to prove up more oil volume in some oil rim reservoirs with unproven oil columns.

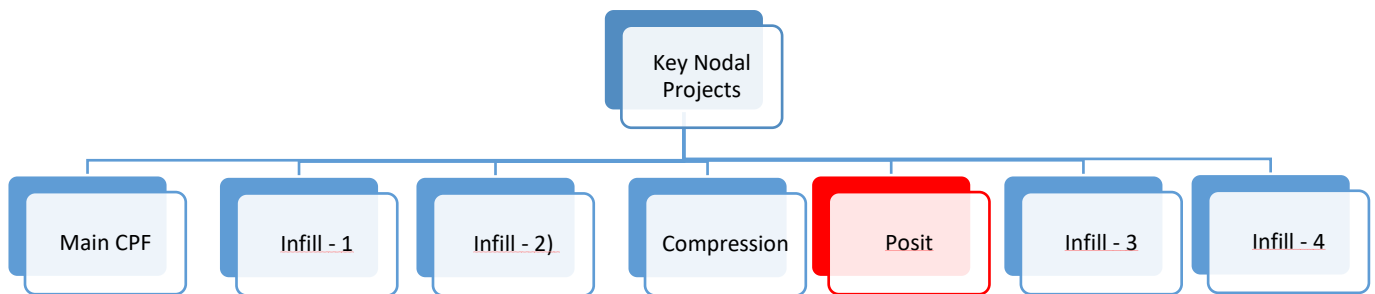


Figure 2.1: Context Diagram

3.0 Project Priorities

The project is driven by the contractual obligation to supply gas to customers. The top project priorities are:

1. Health, Safety and Environment (HSE)
2. Cost
3. Quality
4. Schedule

The above value areas are interrelated, and project success depends on good performance in all these areas.

4.0 Project location

Posit field is situated West of Port Harcourt in Nigeria.

5.0 Project Scope

5.1 Scope Overview

There will be a well location with two prolific non- associated gas (NAG) wells and 6” flowlines. The Posit manifold will be installed adjacent to the well location. The production from the two wells will be flowed from Posit manifold via a 6 km long, 12-inch bulcline to the main Central Processing Facility (CPF).

5.2 Execution Strategy

- Detailed design and construction of roads and locations to be executed by specialist contractor.
- Detailed Engineering Design, Procurement, Fabrication and Construction/Installation of the surface facilities will be achieved by EPC contractors
- Commissioning will be carried out by Integrated Commissioning Team with vendor support.
- Permits and consents to be delivered by the interface management team.

6.0 Project Schedule, Planning and Schedule Management

6.1 Project Schedule

The level 1 project schedule is shown in figure 6.1 below and gives details of key decision points and major milestones. The primary project objective is to achieve Ready for Start Up (RFSU) by Q1 2023.

The schedule has been developed based on past procurement and construction experience. The principal areas of risk within this schedule, include:

- Work disruption due to community and security related issues.
- HSE risk resulting from brownfield tie-in to a live plant
- Construction downtime due to inclement weather conditions.

These risks have been assessed and appropriate control and mitigation measures put in place to address them.

The schedule has been challenged and progressively improved over time as the project scope and execution strategy has become clearer, taking into cognizance foreseeable external constraints.

	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023
Investment Decision	◆									
Contract Award	◆									
Mobilization		■								
Detailed Design		■	■	■						
Procurement			■	■	■	■	■			
Drilling							■	■		
Construction					■	■	■	■	■	
Commissioning / Start up									■	
Project Close out									■	■

Figure 6:1 Posit Field Development Project Level 1 Schedule (P50)

6.2 Schedule Management

The project schedule will be updated as various activities are completed. The schedule at the time of making the final investment decision will be basis for evaluating project performance and will be subject to change control. An Estimate and Schedule Assurance Review for 90/10 costs estimate and schedule took place prior to the investment decision.

6.3 Schedule Objectives

The major objectives of the project schedule are to:

- Sequence and schedule activities to achieve required project completion date
- Plan resources and strategies required to meet established timeline
- Establish expenditure profiles and funding needs
- Identify and evaluate project execution risks
- Report and communicate status
- Evaluate the impact of proposed changes
- Identify gaps versus plan and develop recovery actions

To achieve these objectives, the following strategies have been employed:

- Weekly update of key activities.
- Monthly reporting of measured progress against the plan. The process “Report, Analyze, Act and Communicate” is adopted to maintain work performance to plan.

- An Integrated Project Master Schedule will be maintained in Primavera P6e. The schedule will contain all project activities to Level 4 details.

7.0 Project Cost / Cost Management

7.1 Cost Estimate

An initial type 2 cost estimate was prepared. The estimate was developed using a combination of estimating tools. The Level 3 cost estimate was subjected to a cost risk review & challenge.

The cost is recorded separately for confidentiality reasons and is available for authorized persons to view.

7.2 Cost Management

Cost controls for the project will be in line with industry cost control processes. A cost engineer is part of the project organization. The cost engineer maintains frequent contact with the Project Manager and entire project team to provide support to the project team for project budget and cost estimating, phasing, monitoring, control and reporting.

The budget presented for investment decision was based on the project specifications, execution strategies, risks, Project Control Schedule, and contract bid prices. This budget will be the basis for measuring project performance / value. Any changes to this approved budget will be subject to change control.

7.3 Work Breakdown Structure (WBS)

The basis for planning on the project will be the Work Breakdown Structure (WBS) integrating the project activities. The WBS can be seen from the Project Schedule. Cost management will be via monthly project spend evaluation.

The network structure will be developed and aligned with Primavera planning WBS, which is based on the following detailed scope WBS.

Level 1	Level 2	Level 3	Level 4	WBS Description
Posit.DG				Main Facilities
	Posit.DG.11			Facilities
		Posit.DG.11.002		Field Development
			Posit.DG.11.002.001	Detailed Design
			Posit.DG.11.002.002	Construction - Facilities
			Posit.DG.11.002.003	Construction - Pipelines
			Posit.DG.11.002.004	Wells
			Posit.DG.11.002.005	Commissioning
			Posit.DG.11.002.006	Project Mngement

Figure 7:1 WBS for Posit Field Development Project

7.4 Project Funding / Financing

The organizational Balance Sheet is the approved funding road map for this project.

8.0 Designs

8.1 Basis for Design

There is a Basis for Design (BfD) which is a handshake document from the Conceptual Engineering Team. The BfD document provides the design basis and philosophy for the further design development of the project.

8.2 Detailed Designs

The Detailed Design will be executed by the EPC Contractors. Regular visits will be made to the contractor’s office by the discipline engineers for design reviews. The emphasis of the review team will be to provide inputs to the Contractors detail design effort without diluting the Contractor’s responsibility for its own work. The Project Team will manage the detailed design contractor using pre-agreed yardsticks on schedule, milestones, deliverables, quality, cost control, and change control.

9.0 Contracting and Procurement

9.1 Contracting

A Contracting strategy workshop was conducted. The project Contracting Quilt was developed and shown below.

S/N	Activities	Project Management	Detailed Engineering Design	Long Lead Procurement	Procurement (Bulks)	Fabrication	Construction/Installation	Hook-up/Pre-Commissioning	Start-up & Commissioning	Operate & Maintain
1	Flowlines	Project Team	Facilities Contractor							Asset Team
2	IT Infrastructure									
3	Bulklines		Pipeline Contractor							
4	Power cables									
5	Location Preparation		Civil Team							
6	Drilling and Completion		Well Team							

Posit project Contracting Quilt

10.0 Local Content

The project will proactively explore available opportunities within the local industry in compliance with the law. All civil works, in-plant modification pre-fabrication works, trenching and pipe welding / laying works will be done locally.

Some scopes have been identified as specific work areas to be sub-contracted to competent sub-contractors from the communities and where the skills required for the delivery of any of the work scope cannot be found in the local communities, the Contractors shall develop a program for capacity development to enable participation of local sub-contractors in the project: unskilled and semi-skilled labor.

11.0 Procurement

The Contractors will carry out procurement of all permanent facilities, equipment, and materials as part of the EPC contracts work scope.

A major requirement of the contract is that materials and equipment are procured in accordance with the contract technical specifications using approved vendors' list, to ensure that equipment selection is guided by operational experience, life-cycle cost considerations, variety control and commonality with existing hardware. A criticality rating of all plant equipment will be undertaken and will form the basis of quality assurance efforts in the procurement process.

The vendor packages will be prefabricated and pre-commissioned in the vendor works. They will subsequently undergo appropriate functional tests and Factory Acceptance Tests at the vendor works before shipping out, in line with best practices.

Each Contractor will be responsible for providing vendor warranties as well as the technical support required during construction, pre-commissioning, commissioning and start-up operations for all major equipment and materials. They will also be responsible for preservation of equipment and materials, especially prior to shipment and after packages are opened for customs examination at the port of entry.

The Contractors will be responsible for transportation and delivery to site of permanent equipment and materials, and construction equipment and materials under their scope. The main transport route during construction will be by road however there is a marine option to access the site which could serve as an alternative route. The Contractors will be accountable for the route selection and delivery of all materials under their scope.

In recognition of the significant HSE and schedule exposure from the transportation and storage of materials and movement of personnel, the project team organization includes a logistics coordinator to manage this aspect of the project and interface with the Contractor. All logistics equipment and crew to be used for this project (land and marine) shall be inspected and certified before mobilization to site.

12.0 Communications

The Project Team will issue weekly Highlights and monthly Management reports.

The project team will hold regular meetings to review, discuss and refine Project Status and Project Performance Reporting. Also, issues, changes, risks and opportunities for performance improvement would be deliberated upon during these meetings.

Project plans will be updated weekly by the EPC Contractors / Vendors to reflect project progress and highlight potential scheduling and/or technical problems which might impact project schedule or budget.

Daily and weekly project status reports will be prepared and issued by the EPC Contractors / Vendors.

13. Construction, Fabrication and Pre-commissioning

The contractor's overall responsibility is to deliver the permanent facilities for the project in line with the contract specifications with regards to HSE, quality, schedule, and budget. To assure constructability of the facilities constructability reviews were conducted to examine the possible constructability issues likely to be encountered during construction/fabrication and to make recommendations on how they can be managed towards ensuring that the project is delivered in accordance with the overall project objectives and success criteria.

13.1 Fabrication

The EPC contractors will be required to have a fabrication yard for the execution of pre-fabrication works. Project team representative will be based at the fabrication yard to ensure technical, quality and safety compliance during fabrication activities. Contractor will be required to have a fully resourced team that will be responsible for execution and management of the fabrication works.

The project strategy on fabrication shall include the following key elements.

1. Maximizing off site fabrication and off-site commissioning.
2. Reduction of schedule risks for onsite commissioning by stringent execution of offsite testing to eliminate carry-over of non-conformities.
3. Identifying items requiring Vendor Support for Testing /Commissioning and including this requirement in the procurement and construction contract.
4. Use of Third-Party Inspectors.
5. Participation of project management team in Factory Acceptance Tests as part of the general quality control and inspection requirements for procured items.

13.2 Construction

The construction execution strategy is to maximize off-site fabrication and testing and synergize with any planned shutdown window such that the new equipment, materials and utilities can be hooked up and commissioned with a limited disruption of CPF operations. Therefore, site Construction activities will be scheduled to ensure minimal site activities in live plant while meeting design requirements. Shop fabrication of equipment and major spool pieces will be maximized to minimize site installation. Factory Acceptance Tests in vendor yards will be scheduled prior to load out to enable rectification of any issues identified. Equipment packages will be fabricated and tested before delivery to site as a minimum. Major piping spool pieces will be evaluated for benefit of off-site fabrication.

To expedite the procurement of materials that will be required for tie-in work during shutdown window, contractor will be required to order such materials separately and not be included as part of bulk materials.

Each Contractor will be required to have a construction base located within the close vicinity of the worksite. Also, each Contractor storage facility shall be situated in such a location as to reduce the HSE risks associated with excessive movement of plant and equipment.

The Contractor's construction activities shall include but not limited to the following:

1. Provision, mobilization, maintenance, and demobilization of all facilities and services including all offices, accommodation (and messing facilities), workshops, logistic infrastructure, fabrication shops, construction plant, tools, equipment, support transportation etc.
2. Provision, mobilization, maintenance, and demobilization of all temporary facilities, structures, fences, lands, signs and any other items that may be required temporarily.
3. Pre-mobilization inspection of Contractor's resources, review and approval of project plans, procedures, and management systems.
4. Procurement of equipment and materials and collection of materials free issued by Client.
5. Provision of all personnel required for the fabrication, painting, construction, pre-commissioning, commissioning, support services and supervision of the Works including preservation of pipe spools and equipment packages.
6. Performance of all the necessary site investigation, surveys, site clearing, excavation, filling, leveling, compaction, restoration/remediation etc.
7. Performance of all the necessary, preparations, fabrication, coating, transportation of materials to site, trenching, welding/NDT, laying, field joint coating, lowering and backfilling, tie-in and manifold
8. Testing, pre-commissioning & commissioning, and As-built documentation activities for the completed Work.

9. Taking all reasonable precautions to protect the Work as completed or partially completed, and materials from damage or deterioration by meteorological conditions or construction actions.
10. Demobilization from WORKSITE (following the acceptance of the Work) all Contractor resources including personnel, equipment and materials and reinstate worksite to the same condition as it was when taken over at commencement of the Work.

13.3 Construction Organization

Each Contractor will establish a Construction Team with adequate responsibility and authority for the construction activities in line with the overall project organization. The Contractor shall provide a Construction Manager who will be responsible for the day-to-day running of the worksites and liaison with Client representative(s) on all construction matters including progress and quality of the work. The Construction Team will be based on site for the period of the construction.

The Client Team will provide all construction supervision including HSE and quality. The Project HSE and Quality Leads will be responsible for the initiation and organization of system and compliance audits as per the project HSE and quality plans. The team shall ensure full compliance of Contractor activities with Client and contractual stipulations.

13.4 Concurrent Operations

The installation and tie-in of the new facilities and utility systems to the currently operational Main CPF introduces a concurrent operation scenario.

A Concurrent Operations Plan (COP) shall be developed to address the risks and challenges inherent in these activities and define the necessary engineering, procedural and execution requirements to ensure that gas can be delivered without compromising safety.

The COP document shall cover all activities during construction and commissioning, and the framework by which these activities shall be managed through to the end of the initial operations period. The document, shall, as a minimum:

- Establish guidelines and procedures such that hazards, and associated risks can be identified, assessed, controlled and managed to as low as reasonably practicable (ALARP).
- Assist in planning these activities such that they can be executed in a safe and cost-effective manner.
- Ensure that activities are executed safely and efficiently with minimum environmental impact.
- Define the organizational manning levels, HSE critical position, facilities, competency, and emergency preparedness requirements.

13.5 Pre-commissioning

Pre-Commissioning activities such as punch listing & check out, pressure testing of piping/process systems including pressure vessels, testing of electrical equipment, loop checking of instrumentation, equipment run-in's, flushing, drying, chemical cleaning, cold alignment checks, setting & calibration of instruments shall be included in the EPC contract. The Project Construction team is responsible for managing pre-commissioning completion in accordance with requirements. During the last stage of Construction & Pre-Commissioning (and to assist in establishment of mechanical completion certificates) personnel of the Client-led joint Commissioning Team will be actively involved – under Construction guidance and direction – to prepare equipment and facilities for handover to the Commissioning Team as the final Pre-Commissioning step.

14.0 Commissioning, Handover and Start-up

14.1 Commissioning Responsibilities

The EPC contractor shall have overall responsibility, with Client's input, for the preparation of pre-commissioning, commissioning and start-up procedures and for planning, execution and control of the various hardware construction and testing activities to deliver a fit-for-purpose facility.

The Project team, via the commissioning Lead, has the responsibility to verify that requirements for accepting equipment and systems as complete and ready for energizing / startup have been witnessed by project and asset team staff and are fully documented in a handover dossier.

Operations Readiness (OR) team is part of project organization. They are to ensure that operational requirements are incorporated in the Design, fabrication, factory acceptance testing, construction, commissioning planning, pre-commissioning, internal cleanliness of equipment, commissioning, leak testing, training of operations and maintenance personnel and site acceptance testing are carried out as specified. The OR Lead will subsequently be in charge of bringing in hydrocarbons into the facilities.

14.2 Commissioning Planning

The pre-commissioning and commissioning procedures shall be prepared during detailed design prior to Construction by EPC Contractor. Pre-commissioning activities shall begin with the verification of mechanical completion and end with successful functional testing of individual maintainable equipment including System leak testing and inerting of hydrocarbon systems including vessels prior to the introduction of hydrocarbons.

Commissioning activities will continue with system function and performance testing using process fluids until the stipulated acceptance criteria has been met.

Following commissioning of and stable feedstock production, a 72-hour performance test will be carried out. The performance test will establish the baseline-operating envelope of the equipment and systems. The 90-day reliability run will commence following the 72-hours performance tests. The reliability run will be led by Client commissioning personnel but with the respective Contractor retaining contractual responsibility for the facilities. It would be the Contractor's responsibility to rectify any substantial failure during the reliability period.

14.3 Handover

The project manager would be accountable for the project development until final handover to the new asset owners. Handover takes place after steady state operations are achieved (or a performance test completed), and the final acceptance audit has been successfully passed. This approach ensures that the project manager will deliver a complete and thoroughly tested pipeline and piping system with the accompanying Operate & Maintain management systems.

Punch lists shall be generated at specific times prior to mechanical completion and during pre-commissioning and commissioning. The Asset Holder will agree on the outstanding punch-list with the project team prior to any interim handover being approved.

Commissioning procedures will be reviewed and approved by Client's commissioning team together with the future Asset Holder and Asset Operator to ensure that any potential problems, such as new technology, are identified and also to address the proving of safeguarding and protective systems. All steps within the commissioning procedure will be recorded on a commissioning procedure task acceptance sheet, witnessed as required by the Asset Holder, and the inspection and the certifying authorities.

15.0 Information Management (IM)

Project IM activities will be managed by a team of project IM specialists coordinated by the Information Management (IM) Lead. The IM Lead is responsible for all information-based processes and solutions covering planning, costing and execution, including engagement of necessary IM resources during project execution and across project locations. The other members of the IM team are the Document Controllers and Data Controllers. The Data Controller is responsible for collation and quality checks on all asset data in readiness for loading the target Engineering, Operations & Maintenance systems. The Document Controller sets up and manages all paper and electronic document exchange and storage systems. This includes information repositories, transmittals, review cycles and progress reporting.

The project IM objective is that all information to be handed-over during each project phase and at completion of the project will be sufficient and of adequate quality for the efficient delivery of the project leading to operation and maintenance of the equipment and facilities installed by the project throughout its life.

The Project IM team will ensure:

1. Effective project document control and IM procedures, including:
 - a. Clear information flows between parties and between phases of the project, with clear specification of deliverables and delivery dates.
 - b. Clarity about the master source for any item of information.
 - c. Revision control and procedures for distributing new revisions of information and withdrawing superseded versions.
 - d. Adherence to the agreed numbering / coding / formatting standards.
 - e. Checks and controls on information quality, accuracy and completeness.
 - f. Information Risk Management and access controls.
2. Adequacy of the Contractors' IM organizations, systems and procedures, and effective control (progress tracking, performance measures, audits, improvement programs) thereof.
3. Disaster recovery / business continuity plans, so that critical project information is backed up and can be recovered without a serious impact to the project timetable, if there were a disaster in the project offices.
4. The bulk of asset information, which is generated over the life of the execution phase, is assembled and made available to the Operations and Maintenance organization.

16.0 Information Technology (IT)

The Project IT objective for Posit Field Development Project is to provide reliable, proven and fit for purpose IT solutions and services to enable achievement of the Project objectives.

To achieve the above IT objectives, the Project will:

1. Utilize proven, fit for purpose IT Applications, IT Infrastructure and Telecommunications technologies available from Client IT landscape.
2. Take IT support services from existing and established IT Service Delivery organizations to support the Project Team.
3. Implement redundancy for business-critical solutions to ensure business continuity.

IT risks, quality and scope change management will be carried out within the overall Project Risk, Quality and Change Management Plans respectively. IT Integration will follow Functional IT Change Management processes.

17.0 Health, Safety, Security and Environment (HSSE)

17.1 Health, Safety and Environmental Management Strategy

Client HSE policy requires all activities to be planned and executed in a manner that:

- Preserves the health, safety and security of employees, the employees of Client, contractors and members of the public.
- Minimizes the impact of its operations on the environment.
- Is sensitive to the needs and concerns of the host communities.

Project activities and subsequent operations will be planned and executed such as to ensure that risks posed to people and the environment is As Low as Reasonable Practicable (ALARP). Project activities will be managed to ensure that injuries to people resulting from workplace hazards are kept to as low as reasonably practicable.

HSE activities to be carried out during the project will include:

- HSE plan development and implementation
- HSE Studies and Reviews
- HSE trainings & inductions
- Worksite Hazard Management Approvals, Certifications and Notifications
- Incident Management and Reviews
- Reviews and Audits.
- Environmental, Social and Health Impact Assessment

18.0 Quality

18.1 Quality Objectives

The Project Manager, being the owner of the Project Quality Plan, is accountable for the production and maintenance of the project Quality Management System (QMS), and for its implementation across the Project. Project Engineers at each site/stage of the Project are responsible to the Project Manager for local implementation and compliance, which is subject to periodic review and audit. The primary quality objective, in support of the Project Execution Plan is to implement all phases of the project to a consistently high quality to meet with the opportunity statement and to comply with applicable codes, standards and regulatory requirements thus ensuring that the project safety, environmental, performance and operability targets are met and that handover to the asset owner (customer) is achieved in line with the agreed levels of quality.

The Quality Objectives are:

- To provide Pro-active quality activities and initiatives that are defined, planned, supported, and effectively monitor Project technical objectives and Project performance targets.
- To achieve and maintain the standards included in the Contract(s).
- To ensure that Project Team and Contractor(s) / Suppliers Quality Management Systems are effective in achieving Project Quality objectives.
- To ensure compliance with Company, national and international codes & standards and statutory regulations
- To document and record compliance with the Project quality requirements and in so doing provide a clear audit trail.
- To ensure that Technical Integrity is maintained and verified throughout all phases of the Project.
- To ensure that Change Control is applied rigorously and all deviations from the Contract and technical standards are recorded, controlled and authorized.
- To identify, record and compile all necessary records and hand over documentation in a timely manner during the life of the Project.
- To take cognizance of "Lessons Learned" from other sources and to ensure that the Project Team also feeds back Lessons Learned to other projects.
- To give assurance that "flawless project delivery" is realized

All quality management activities shall be carried out in an auditable manner and documented to ensure that the required quality is achieved and assured.

18.2 Quality Management System Philosophy / Strategy

The Project Quality Plan enshrines the principle that activities having a significant impact on any aspect of project quality, safety, or environmental impact should be identified within the planning. Responsibility will be assigned to a suitably competent person, and the compliance with requirements for the output subject to an appropriate measure of verification.

Supplier and Contractor compliance with contract quality, safety and environmental requirements, including those of their own QMS approved for the contract will be subject to design validation and compliance verification by a system of review, audit and surveillance, as appropriate to the work.

The primary quality management functions of the project management include:

- Project definition and specification
- Management of compliance with the BfD
- Quality planning and establishment of project procedures
- Criticality assessment
- Bid evaluation and contractor selection
- Internal audit

- Audit and surveillance of contractor performance
- Maintenance of the quality system
- Monitoring the capture of quality records
- Ensuring personnel have appropriate competence for their responsibilities
- Quality inspection of all documents and deliverables
- Maintain and action needs, issues, and risk logs

Supplier and Contractor compliance with both project quality requirements, and those of Contractor QMS approved for the Project, will be subject to verification by audit; either external or by observing contractor audits, system surveillance, and/or product sample inspection, as appropriate.

Formal Quality Management Reviews, Technical Audits, Design Reviews and Special Safety and Environmental Studies shall be scheduled for the Project. The scope of such reviews shall be recorded, together with action items and their resolution, which shall be subject to status reporting and close-out expediting.

Management Reviews shall be timed to assess the Project and/or Contract status and progress. Readiness to proceed with a following phase of work, considering completion status and outstanding items for the current phase (which shall be punch listed) together with logistics and planning, constraints, and contingencies for future phases of work will be reviewed.

18.3 Technical Integrity Verification (TIV)

Project Team intends to obtain assurance that technical integrity verification is undertaken throughout the design, procurement, construction, and commissioning activities and through to operations and maintenance, and the final product is compliant with the Basis for Design and technical specifications.

The technical integrity verification scheme shall consist of:

- Quality Management of activities and deliverables that is critical to technical integrity.
- A documented scheme by independent verification of Safety Critical Elements as identified in the safety cases.
- Commissioning management to verify systems comply and perform with the design requirements, thus validating the design.
- An audit and review schedule, with follow up action to verify audit closure.
- An adequate asset information management system to assure the integrity of the facilities data and documents throughout the lifecycle and operational phase verification scheme.

18.4 Change Management

All changes that could potentially impact the project in terms of cost, scope, quality, technical integrity, schedule, functionality, operability, HSE will be subject to change control. The procedure includes:

- Identification of the proposal and assignment of a Sponsor for the change or technical deviation,
- Methods to identify alternatives and determine their implications (including the 'no change' option),
- Comparison of alternatives, addressing financial, Regulatory, quality, certification, HSE, production, schedule and legislative implications,
- Change implementation,
- Monitoring system that verifies that the Change or technical deviation has been implemented as approved, and that relevant documents / drawings are updated.

18.5 Continuous Performance Improvement Plan

The Contractor shall be required to establish and implement a process for making use of audit results, analysis of data and records of management review to continually monitor and, where appropriate, improve the effectiveness of the management system. A system for addressing lessons learned on previous projects and contracts shall be used as the basis for identifying preventive actions.

A documented procedure shall be established and implemented to ensure that any nonconforming product is analyzed, and corrective actions implemented to prevent recurrence during the project. A review of this process shall take place at 6 months' intervals. Training is an important tool to achieve required improvement in Project Management, the objective of the improvement process is to identify areas for improvement of the Project Management and Quality Management System, the Project Quality Plan and associated controls.

19.0 Project Risk & Interface Management

The Project Risk Management Plan aims to:

- Enable a process for identification and evaluation of risks to the achievement of the project objectives
- Sets boundaries for risk accountabilities
- Enable implementation of fit-for-purpose responses, and follow-up,
- Communicate and report out risk information to relevant stakeholders on a pre-determined frequency.

The Project Risk Management Plan will be distributed to the project stakeholders through the formal document control system.

19.1 Project Risk Management Objectives

- Risk Management is an integral part of Project Management.
- The purpose of Risk Management is to identify/assess risks, develop prevention and recovery/ enhancement actions and to manage the planned actions.
- All teams identify risks, track actions, and monitor progress on risks and mitigations on a regular, periodic basis.
- A summary of the Project Top risks will be reported to the leadership teams monthly during the progress review meetings.
- The whole team works in an integrated and coordinated fashion to identify all possible risks and develop mitigations.

Risk Management is a part of project excellence. Risk Management should be live and involves re-examining existing risks; identifying new risks; ensuring prevention / recovery / enhancement actions are in place and are the best possible.

19.2 Risk Reviews

Risk review sessions are held monthly and will continue for the duration of the project life. These sessions are used to identify and assess new risks, review existing risks, assess progress on agreed actions, and allocate new actions and /or owners where required. The regular update of risks by the risk owners is a prerequisite for the reviews and will be an ongoing activity throughout project lifecycle and will be facilitated by the Risk Management Coordinator

The Risk Management Plan will be updated and reissued yearly or where there are key project/ functional changes.

19.3 Risk Reporting

In order to communicate risks effectively within the project and integrate risk management into the normal project management practices the project will:

- Flag up Top project risks, results of any significant risk activities that took place during the previous month, and any upcoming planned risk management events during the project team weekly highlights to the Project Leadership.
- Include risk management in the monthly project progress report: The project monthly reports will describe the major project risk events that have occurred during the month and provide look-ahead and key actions to be completed in the upcoming period.
- Ad-hoc Risk Reporting and update to the Risk Register based on current project realities

20.0 Estimate at Completion (EAC)

The project team has developed a variation and trends management system to accurately forecast estimate at completion and remain within the approved project budget. All unplanned events and developments that have changed the originally estimated and approved cost of the project is fully documented for a transparent reporting of the project budget to Management.

21.0 Earned Value Management (EVM)

The Project team integrates the three constraints, including scope, schedule, and cost required to measure the project status against the baseline. EVM is derived by measuring actual work completed at a point in the schedule.

22.0 Bibliography

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