



The Shell Petroleum Development Company of Nigeria Ltd.

DEVELOPMENT OF ALTERNATIVE COFFERDAM SOLUTIONS FOR PIPELINE OPERATIONS

BUSINESS CASE & IMPLEMENTATION PLAN

Rev	Date of Issue	Originator	Reviewed	Approved
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1.0 PROBLEM STATEMENT

Currently, the schedule for pipeline repair and construction works in SPDC is usually adversely impacted by the process for installing typical sheet pile cofferdams to create dry environments for work in the business's swampy areas of operation. The significant number of manhours on site also contributes to increased HSSE exposure for workers. Besides the impact on schedule, the process for installing these cofferdams typically involves the transportation of a considerable volume of materials, e.g. sheet piles, to site for construction.

2.0 BUSINESS CASE

This Continuous Improvement initiative is aimed at improving the safety and speed of cofferdam and excavation side supports installation for pipeline repair and construction works in SPDC.

3.0 OPPORTUNITY

There is an opportunity to explore and propose inflatable/prefabricated cofferdam solution(s) for deployment in SPDC's pipeline operations, as alternative(s) that would be quicker and safer and eliminate the need for structural works compared to current practice.

4.0 SCOPE

- Ideation, scoping and requirements definition
- Research and proposal: Study on capacity and performance of alternatives
- Development of detailed cost/value benefit argument and alternatives Concept Selection
- Engagement with other OUs with deployment experience

- In-country vendor availability study.

5.0 DESIRED OUTCOMES

- Optimized schedule for pipeline repairs and construction works.
- Simpler logistics requirements for cofferdam installation.
- Cost savings.

6.0 IMPLEMENTATION PLAN

S/N	Activity	Timeline
1	Ideation, scoping and requirements definition	Q3 2023 (Complete by 7 th Sept.)
2	Research and proposal: Study on capacity and performance of alternatives	Q4 2023 (Complete by 7 th Oct.)
3	Development of detailed cost/value benefit argument and alternatives Concept Selection	Q4 2023 (Complete by 31 st Oct.)
4	Engagement with other OUs with deployment experience	Q4 2023 (Complete by 15 th Nov.)
5	In-country vendor availability study	Q4 2023 (Complete by 15 th Nov.)

7.0 TEAM

LEAD: Asilonu Collins

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