Project Control Documents and Strategies

Many projects in the oil and gas industry have and continue to fail to deliver on one or more of the three pillars that define project success: Cost, Schedule, and Quality. Only when these three “pillars” are met can a project be judged a success.

A project can fail to meet one or more of the Cost, Schedule, or Quality pillars due to several reasons, including:

- Lack of user involvement;
- Unrealistic time scales;
- Poorly defined requirements;
- Lack of attention to project objectives once project execution is underway;
- Scope creep;
- Absence of or an inadequate change control system;
- Poor testing and commissioning.

The key to avoiding these dynamics is effective utilisation of project management tools and techniques. While volumes have been written on this subject, the purpose of this paper is to briefly summarise some of the basic tools and techniques, particularly as applicable to the oil and gas industry.

Planning Documents

In the definition and planning phases of a project, the project owner or its agent should prepare a project execution plan and project controls plan. These can be separate or combined and are variously called a Project Execution Plan (PEP), a Project Controls Plan (PCP), and a Project Execution and Controls Plan (“PECP”). In general, these define the strategy for execution of the project objectives, scope, key drivers, and other parameters of the project.

A PEP contains the policies, philosophies, and strategy for defining, planning, executing and closing out the project. The project team uses the PEP as a summary of the overall project to ensure that the management, engineering, procurement and construction functions of the project meet the required goals and objectives.

A PCP provides the base for the project team to execute their activities within the boundaries of the project scope of work, schedule and budget. It is used as guidance to resolve issues, control cost and schedule and as a roadmap to planning. The PCP is a living, working document which the project team would update as necessary to reflect revisited project plans.
Our firm generally prefers to combine the PEP and PCP into a PECP. (The remainder of this paper will reference the plan execution and control documents as the PECP, unless clarity requires otherwise.) In effect, the PECP becomes the project manual and should be the basis for all work performed during the execution and commissioning phases.

**Importance of Planning Documents**

The science of project management is a well-established and has been proven time and again to yield success if its tools and techniques are implemented effectively. The problem seems to be that many organizations and project teams tend to focus on the execution phase of the project and neglect the definition and planning phases, primarily because they are less “visible”.

Unfortunately, this impression leads to many projects going awry. Like a living organism, a project has life-cycles: definition, planning, execution, and close-out. The phases other than execution, though less visible, are just as important, if not more so. If a project has not completed each stage of its lifecycle to maturity, especially definition and planning, it will not succeed in subsequent phases.

Therefore, each phase of a project should be treated with equal importance. Among other things, this requires creation of an effective PECP before execution, and adherence to it during execution.

Although initial creation of the PECP can be time consuming and resource intensive, the pay-off comes when the project team actually reads and follows the plan. Failure to prepare such control documents may result from a naïve belief that the stakeholders in a project – the owner, the operator, the shipyard, and the contractors - will instinctively understand their respective roles and know what should be done. Execution of projects without such PECP’s usually results in failure, which means waste of tens of millions of pounds (or dollars), unnecessary delay, and potentially spurious legal claims from subcontractors.

By itself, however, preparation of a PECP does not guarantee success. In many instances, an organisation will either (1) prepare a PECP without the participation of the team that will implement it or (2) fail to educate the team about the plan. In such cases, the project team often ignores the PECP and defaults to a “what I think is best” approach.

An even worse situation arises when the project team disintegrates in all but name and each individual becomes a “one man army”. In each of these cases, the parameters that were used to define the project, as well as the key project drivers, are relegated to the background.
Planning for Project Success

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Another problem in the context of drilling rig projects occurs when the operations team seeks to play an active rather than supporting role in the execution of the project. In some instances, the operations team has been known to take control of the project. If allowed to occur, this invariably results in discarding the project scope that was defined at the start of the project and project failure because of the addition of “nice-to-haves”.

Avoiding these problem areas and assuring project success therefore requires that all stakeholders should be aware of the PECP and have “bought into” it.

Adherence to a PECP is enhanced if the entire project team as well as major stakeholders have contributed to the process and are fully informed of the plan. This generally requires consultation during the planning phase, as well as explanations as required throughout the life of the project.

Other Strategies

Although preparation of a PECP and gaining adherence to it are vital to project success, they are not the only project management strategies to help ensure success. Some of the other strategies are:

Qualitative and Quantitative Risk Assessment

The project owner or its agent can perform a qualitative and quantitative risk analysis of the likelihood of project success on any or all of the three pillars of success. A qualitative ranking involves assessment of the probability and impact of risks, investigating mitigation strategies and the costs and benefits of implementing them.

A quantitative ranking assesses the likelihood of cost and schedule overruns to give a probabilistic end date, generally ranked by a 20% (P20), 50% (P50), and 80% (P80) probability of occurring or achieving.

Project Audits

Even the best planning and training can be derailed by the realities of execution. The project owner or its agent should carry out project audits periodically to ensure that the project is going according to plan and that the parameters laid out in the PECP are being adhered to. Carrying out regular audits greatly reduces the risk profile of the project while greatly increasing the probability of overall project success.

Lessons Learned

Finally, conducting lessons learned exercises is an important but often overlooked part in the project close-out
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It is essential to capture, analyse, and document what went wrong on the project so as to avoid similar occurrences and what went right, so as to benefit from them on future projects.

Benefits of Using Independent Project Advisor

Épeus provides project advisory services, including

- preparation of PECP’s, including solicitation of input from stakeholders, training, and kick-off meetings
- performance of qualitative and quantitative risk assessments
- performance of projects audits
- performance and preparation of lessons learned reports.

We specialise in providing these planning, advisory, and assurance services for capital investment projects of many sorts.

Involvement of a third party such as Épeus during project definition and planning will ensure that the client’s interests are looked after, as there is a vested interest in the form of maintaining a professional reputation. There is also an assurance that professional best practices will be observed during the definition, planning and monitoring of the project. Another advantage to using Épeus is that a fixed price is charged for providing these services.

We at Épeus combine our service offerings with independence and unbiased advice. Because we do not provide other services in connection with a project, we do not have conflicts of interest in recommending the best resources for a project, which itself enhances the likelihood of project success on the within the parameters of Cost, Schedule and Quality.

Visit our website for more information about Épeus and how we can help you achieve project success.