When it comes to large construction programs, the f nish line is often the most critical and challenging part of the journey.



commissioning readiness well before hitting these critical phases to avoid costly overruns during the f nal stages.

FROM YOUR EXPERIENCE, HOW EARLY SHOULD COMMISSIONING START TO ACHIEVE MAXIMUM BENEFIT FOR THE PROGRAM?

Kevin: Commissioning should start early, ideally during the predesign phase. Getting involved early means clearly defining and documenting the owner's project requirements (OPR) to provide the design team with the critical criteria on which they are to base their design. The commissioning team reviews the design documents as the design progresses to verify completeness, compliance with the OPR, and coordination among disciplines. It also allows us to provide feedback before construction begins, which helps avoid costly changes down the road. Early commissioning involvement on large programs is crucial for identifying and resolving gaps in design when it is signif cantly more cost-effective to resolve than after construction has begun.

Bill: By bringing in the commissioning team early, issues that could become expensive problems later are caught during the design process. Early involvement improves the quality and coordination of the construction documents, establishes expectations, and reduces the number of requests for information and change orders submitted by the contractor, which often cause delays as they await f nal directives/ approvals. Ensuring that every commissioning phase is properly prepared and planned for reduces the chances of schedule overruns, which can be incredibly costly, and ensures accurate information is provided to all stakeholders, especially the end user.

TYPICALLY, THE COMMISSIONING TEAM IS A SEPARATE GROUP INDEPENDENT OF THOSE WHO DESIGNED OR BUILT THE PROJECT. HOW SHOULD THE DESIGN, CONSTRUCTION, AND COMMISSIONING TEAMS INTERACT TO ACHIEVE THE BEST OUTCOME?

Kevin: The key is collaborative communication. The project team, including the owner, designer, contractor, and commissioning agent, needs to work together and be invested in the process to identify issues and develop the best solutions for those issues. That means regular coordination meetings and having the commissioning team review design documents and provide feedback before signif cant milestones. When we're involved early and stay involved throughout, the whole process becomes smoother and minimizes the issues identifed during testing when most projects are already in a time crunch. Regular readiness assessments before critical phases help address gaps before they lead to delays and streamline the handover process.

Bill: I agree that communication is critical but must be fair and transparent. If we keep everyone aligned and not afraid to speak from the start, we, at best, avoid surprises and, at worst, identify issues as early as possible to determine the path forward collectively. The commissioning team should be integrated into the project team and looped into all design reviews and construction updates so there are no lastminute issues when it's time for testing. On large programs,



focus on the installation and the readiness of each system, commissioning will not become a bottleneck in overall project completion. This means conducting commissioning assessments as part of project progress updates to ensure no gaps remain. This way, we stay on track and avoid delays that could otherwise impact the entire project's operational readiness.

THE KEY TO FINISHING STRONG

The key to f nishing strong lies in clear communication, early involvement of the commissioning team, and strong collaboration between all parties—design, construction, commissioning, and owner. By understanding each other's challenges and working together, projects can reach completion on time with systems that function as intended. The commissioning process may be complex, but the right approach makes sure that the program doesn't just f nish—but f nishes strong.

