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Constructability Driven Engineering in Oil and Gas Projects

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Abstract : Lower crude oil prices increased the pressure on oil and gas projects. Being competitive becomes very important and critical for the success in any industry. Increase in size of the project multiplies the magnitude of the issue. Timely completion of projects within the budget and schedule is very important for any project to succeed. A simple idea makes a larger impact on the total cost of the plant. In this robust world, the phases of engineering right from licensing technology, feed, different phases of detail engineering, procurement and construction has been so much compressed that they overlap with each other. Hence constructability techniques have become very important. Here in this paper, the focus will be on how these techniques can be implemented and reduce cost with the help of a case study. Constructability is a process driven by the need to impact project's construction phase resulting in improved project delivery, costs and schedule. In construction phase of one of our fast-track mega project, it was noticed that there was an opportunity to reduce significant amount of cost and schedule by implementing Constructability study processes. In this case study, the actual methodology adopted during engineering and construction and the way for doing it better by implementing Constructability techniques with collaborative engineering efforts will be explained.

Keywords: being competitive, collaborative engineering, constructability, cost reduction

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