

Design Standardization in Aramco: Strategic Analysis

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Abstract : The construction of process plants in oil and gas-producing countries, such as Saudi Arabia, necessitates substantial investment in design and building. Each new plant, while unique, includes common building types, suggesting an opportunity for design standardization. This study investigates the adoption of standardized Issue For Construction (IFC) packages for non-process buildings in Saudi Aramco. A SWOT analysis presents the strengths, weaknesses, opportunities, and threats of this approach. The approach's benefits are illustrated using the Hawiyah Unayzah Gas Reservoir Storage Program (HUGRSP) as a case study. Standardization not only offers significant cost savings and operational efficiencies but also expedites project timelines, reduces the potential for change orders, and fosters local economic growth by allocating building tasks to local contractors. Standardization also improves project management by easing interface constraints between different contractors and promoting adaptability to future industry changes. This research underscores the standardization of non-process buildings as a powerful strategy for cost optimization, efficiency enhancement, and local economic development in process plant construction within the oil and gas sector.

Keywords : building, construction, management, project, standardization

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