

CASE STUDY

TAR Execution Improvements Analysis Results in 23% Labor Savings at Scandinavian Refinery



Aim	Identify TAR execution and preparation improvement potential
Status	Analysis completed; optimization project delivered 10-20m NOK savings
Client	International refining business
T.A. Cook	Selected upon range and depth of experience with world-class refineries

Background

A Norwegian refinery was interested in identifying potential preparation and execution improvements for their upcoming TAR. The site approached T.A. Cook to conduct a three-week analysis.

Approach

Through a combination of observation, data analysis and interviews with key TAR and maintenance personnel, the consultants identified a number of key areas for improvement.

The exploration found that productivity at the site was low. Only 35% of the paid available time was spent on value-adding activities although industry best practice would have this number between 60 and 65%. The TAR execution schedule was poorly managed, leading to delays and low productivity. The planning base was overestimated by 100% compared to the industry average. Finally, the TAR scope challenge was not adequate nor was the permit process.

Based on these findings, recommendations were made to regain the site's productivity focus. A revised permit system that met safety requirements in a 'cold plant' environment was outlined and communicated to the team. This included fully clarifying roles and responsibilities at each level to prevent

overlap and to free up maintenance capacity. Job plans were then distributed which assigned a full day's work to each trade. A Management Control and Reporting System (MCRS) was defined, which vastly improved the site's decision-making and problem-solving abilities.

Achievements

A mechanical contract negotiation approach was established to support the supply chain teams in negotiation meeting preparation. One single reporting line was set up and the planning base was improved, leading to a reduction of mechanical hours by 18%. Productive time was increased by 100 minutes per craftsman per day and scope was reduced by 2%. Full MCRS implementation allowed for tasks to be planned and scheduled according to priority, helping to sustain long-term improvement.

Benefits

- 23% direct labor savings identified on scope of 200,000+ hours
- Contract negotiations reduced mechanical expenses by 15m NOK
- Mechanical hours reduced by 18%
- Productivity increased by 100 minutes per craftsman per day
- 2% overall TAR scope reduction

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