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WE DELIVER CHANGE



CASE STUDY: COAL BASED SYNFUELS MANUFACTURER

Site: Sasol Synthetic Fuels (SSF) operates the world’s only coal-based synfuels manufacturing facility at Secunda, South Africa. The company produces synthesis gas from low-grade coal and uses a unique technology to convert this into a large range of petrochemicals. These products include gasoline, diesel, liquefied petroleum gas and other synthetic liquid fuels, as well as industrial pipeline gas and chemical feedstocks. SSF produces most of South Africa’s chemical and polymer building blocks, including ethylene, propylene, ammonia, phenolics, alcohols and ketones. The operation is the largest manufacturing facility in the Southern Hemisphere and produces approximately 750 million tons of products annually.

Nature of the Opportunity: The Synfuels Operations Group had attempted to correct deficiencies in equipment reliability, excessive lost production, and spiraling maintenance costs over the previous years with modest success. The vastness of the facility additionally contributed to highly diverse approaches and processes applied to maintenance and reliability. Synfuels was spending in excess of R1.20 billion (\$200 million USD) annually on maintenance.

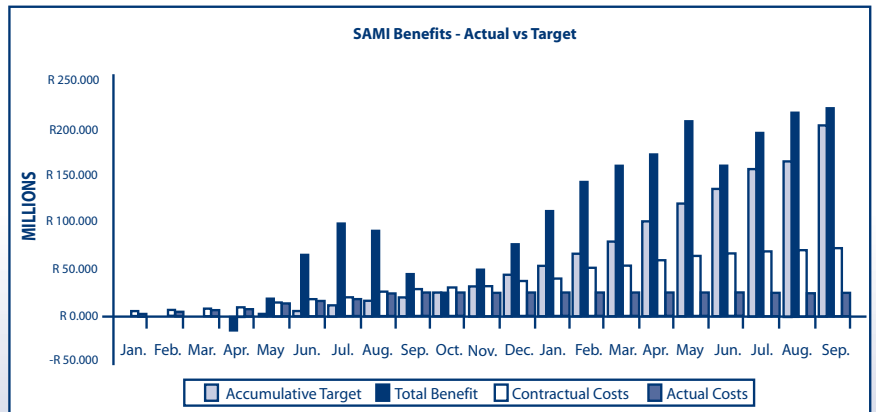
What We Did: We completed an assessment of the full operation’s maintenance processes focusing on work management and found it to be variable and incomplete. The assessment team, comprised 70% of our clients multilevel personnel, provided these gaps to our strategic planning process from which a multi-year Operating Strategic Plan took life. Our SAMI/Sasol Design Team validated a new work management process then developed the training, documentation and timetable for implementation across the facility. We constructed a three wave system for implementation to minimise the impact and cost to this huge facility.

Collaboratively, SAMI and Sasol consultants and coaches from the Design Team plus other trained and motivated individuals from the various business units first implemented the new processes then began a “sustaining” phase to firmly imbed the new ways of working and thinking about work management in each unit. The Teams utilised a scorecard developed during the design phase to track progress in each unit weekly. If a unit appeared to slip off the pace set for progress, we remobilised our troops to provide additional assistance in that area.

At the completion of the sustaining period, we thoroughly audited each business unit for compliance to the new ways of doing business and for the proper behaviours that predict the sustainability of the initiative. All business units achieved SAMI Stage 1 certification prior to the end of the set schedule for the project.

Additionally, SAMI and Sasol collaborated on a new work process for the Production side of the operation which has subsequently corrected several basic flaws in their production business processes netting the operation a much smoother transition between the continuous operating shifts.

Results: The project netted a significant reduction in maintenance expense, nearly R175 Million (nearly \$30 Million USD) for a substantial multiple return on their investment. The true significance of the initiative was that we pulled six widely divergent business units into an aligned method and common processes for operating and maintaining the reliability of the operation. Emergency work is now only 20% of the initial reading, crew efficiency has nearly doubled and maintenance work schedule compliance on a weekly basis approaches 90% on a consistent basis. Divergent silos of functionality among the units have coalesced into a much stronger business team.



For more information on SAMI and our methods, contact Amber Loukoumis at aloukoumis@samicorp.com or +1 (860) 675-0439.