

CHAGRES SMELTER SAYS 'YES' TO IMPLEMENTING RAPID RESULTS

- Connects strategic objectives to the operational changes required
- Creates awareness of performance objectives

Business objective

Chagres Smelter's management set out to increase the smelter's performance by curbing fuel consumption, increasing metallurgical output and enhancing the smelting rate.

Rapid Results was identified as the ideal approach for connecting the smelter's strategic objectives to the operational changes required to enhance performance and become more cost efficient.

Alrien van der Walt, then part of Anglo American, assisted the operation with implementing the process.



Team

The projects' teams were restricted to eight members that represented various disciplines from a grass-roots level to key role players.

Participants were challenged to offer innovative solutions to the identified performance constraints in an open and safe environment.

The composition of the team lends itself to cross functional learning, where participants acquire in-depth knowledge about processes that they are not necessarily involved with on a day-to-day basis, equipping them to understand the real impact of change, which is accelerated by daily performance tracking.

The fuel saving project realised a 9% decrease in the daily consumption of fuel, 29% in diesel and 7% in natural gas.

Operation

Chagres Smelter is located 400 metres above sea level in Region V in the municipality of Catemu, 100 kilometres north of Santiago. The Chilean smelter's productive process is undertaken by means of a modern Flash, a technology known for its low emission levels, making Chagres an environmental leader in Chile's mining industry. The smelter processes copper concentrates from Los Bronces and El Soldado.



CHAGRES SMELTER SAYS 'YES' TO IMPLEMENTING RAPID RESULTS continued

- Generates innovative solutions in an open and safe environment
- Implements rapid cycles of measurable change

1 Improvement results: Project wave 1

The first wave of improvement projects at Chagres Smelter illustrates how a structured process like Rapid Results can generate learning, tap experience from a diverse team and generate tangible results. The projects involved in the first wave included:

- “On the way to Saganoseki” a fuel saving project that realised a 9% decrease in the daily consumption of fuel, 29% in diesel and 7% in natural gas. These results were partly attained due to the increased training of workers on the use of fuel as well as internalising the control of consumption among operators. Saganoseki is a smelter located in Japan and is considered to be one of the most energy efficient copper smelters in the world and a great role model to which this project team aspires.
- “Copper with Ears” set out to achieve a metallurgical output of 97.3% within 100 days, achieving 97.61% at the end of the implementation period. The project's name underlines the importance of being attentive and listening to improvement suggestions and operational enhancement ideas that are put forward.
- “Fast and Furious” planned to establish the smelting rate of dry concentrates in the flash furnace to 75 tonnes per hour within 100 days and generated 45 improvement initiatives. The smelting rate during two months of the project was influenced by the quality of the concentrates and despite the best ever fusion rate achieved during one of the months of 76,4tph, the two-month below average performance affected the attainment of the set goal. The team performed well regardless and generated valuable learnings from the implementation.

By default, performance reporting and meetings continue on a formal and informal basis, even after the completion of the projects' timeframe.

2 Successive improvement projects: Project wave 2

Since the completion of the first wave of improvement projects, additional subset projects were identified, underlining the cyclic nature of the Rapid Results methodology.

These initiatives included:

- Lowering S emissions;
- Reducing total injury frequency rate; and
- Copper recovery improvement phase 2.

Rapid Results helps create awareness about performance objectives and empowers people to become part of the solution. Daily performance measurement keeps the focus on the key performance indicators, and prompts quick, effective decision making.

While Rapid Results helps to identify, implement and sustain operational improvement, sustaining the discipline of the process after the projects' completion is imperative to achieving successful, long-term change.



Who do I contact?



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