

↑ making a difference

CASE STUDY

BHP Billiton Olympic Dam copper refinery crane optimisation

BACKGROUND

BHB Billiton operates a copper electro-refinery (ER) at Olympic Dam to refine blister copper produced by the smelter.

In the ER a crane is used to transfer anodes and cathodes between cells and a Cathode Stripping Machine, an Anode Preparation Machine and an Anode Scrap Machine.

Fresh anodes are loaded into the Anode Preparation Machine and then transported to the cells. Cathodes are transported from the cells to the Cathode Stripping Machine. Spent anodes from the cells are transported to the Anode Scrap Machine.

The cells operate on a ten day cycle. In each cycle, all cathodes are stripped and returned to the cells, while on every second cycle all anodes are replaced.

SOLUTION

Recognising that the crane was the bottleneck of the refinery, BHP Billiton asked RMDSTEM to find ways to improve crane performance, thereby increasing the refinery's capacity.

Using our model based optimisation (MBO) approach, we collected data over a 6 week period and analysed the crane's performance. We then identified and assessed the potential improvement opportunities and implemented our suggestions. We did this without at any stage interfering with normal refinery operations.

RESULT

RMDSTEM in collaboration with the client delivered a

15%

improvement in
crane utilisation



The difference is results