



TOTAL PRODUCTIVE MAINTENANCE (TPM) IN A CEMENT PLANT



BACKGROUND

“Competition from the Eastern market is fierce and forces us to further improve operational excellence. Our plants need to reduce their operational cost drastically. Therefore we have to improve our production and maintenance processes up to a world class level.”

Alexander Lipp, Technical Manager

OBJECTIVES

- Installation of more efficient processes in maintenance and production
- Implementation of an integrated plant management system
- Enhanced capabilities for continuous improvement
- Increased productivity of technical and human resources

RESULTS

Through integrated planning and reporting processes maintenance and production are coordinated in order to optimize the utilization of resources. The plant wide operational management system ensures fact based decisions. Across all levels and functions people measure their performance and generate actions for further improvements. A shut down management process is developed and tested. The required project management tools are understood and in use.

Operational indicators:

Reduction of

- Maintenance material cost by 20%
- Maintenance contractor cost by 25%

Improvement of

- Planned maintenance work by 50%
- OEE of the main equipment by 10%

“We are on track now. The TPM-programme enables our employees to drive and measure performance in their respective areas. Productivity and cost levels are going in the right direction.”

Alexander Lipp, Technical Manager



HOLCIM (HUNGÁRIA) RT. MISKOLC, HUNGARY

Holcim is one of the leading cement producers in the world. Holcim (Hungária) Rt. operates two cement plants: one in Miskolc, the other in Labatlan. In these two plants approximately 400 employees produce two million tons of cement per year for the Hungarian market.

THE CHALLENGE

The market of Holcim (Hungária) Rt. is affected by low cost imports from Eastern countries. Therefore it is vital for the plants to drastically reduce their specific production cost. In this context Holcim has identified the need for a significant upgrade of production- and maintenance processes. Holcim decided that the implementation of the TPM philosophy in both plants is the appropriate measure.

THE TARGET

Optimization of the Overall Equipment Effectiveness (OEE) at the lowest sustainable cost is to be achieved by implementing

- advanced maintenance processes, tools and methodologies
- enhanced plant management control and reporting system
- third party cost management and optimized stock level
- a significant change in behaviour throughout supervisory & management levels

THE APPROACH

A business analysis of operations in Miskolc and Labatlan lasted four weeks and identified the improvement potential. A detailed project plan was designed to realize the identified potential during the nine month project. Critical equipment was identified and FMEAs were processed. The appropriate RCM (Reliability Centered Maintenance) Strategy for the equipments was defined. Maintenance activities are planned on a weekly and daily base and measured against the budgeted objective regarding cost and equipment availability. The OEE of all equipment gets reported and analysed concerning losses. Based on an ABC-XYZ analysis stock levels were defined and optimized in order to minimize working capital. All employees were trained and coached during introduction of the new tools and methodologies. Finally the transformation and adjustment of the tools and methodologies from one plant to the other has been initiated and carried out.

THE RESULTS

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WHY C2 CONSULTING?

Holcim identified that the required tools and methodologies to improve the operational processes were internally not available within the plants. The need of external support concerning TPM tools and change management methodologies was obvious. c2 consulting has a profound experience about the process industry and a proven track record in successful change management. A firm commitment to achieve the results, with a fixed consulting fee made c2 consulting to the right partner for Holcim (Hungária) Rt..

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