

CEMENT PERFORMANCE REVIEW

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BUDGET 2011 AND CPI SERVICES

- 2 For many of you its that challenging time of the year again—budget time. Whilst it is a difficult task at the best of times (when plants are sold out), it is even more
- 3 challenging in current times when sales volumes are unsure and there is a downward pressure on costs at the plant to improve profitability.

In my experience, there are two schools of thought on how to prepare budgets and submit them to the Corporate headquarters for approval. The first of these is to prepare the budget in the full knowledge that the budget will be challenged for reductions and therefore the first draft of the budget is set with some “fat” and “nice to have” items, which can then be stripped out to give a more realistic budget that is acceptable both for the plant and for the Corporate headquarters. The second strategy is to prepare a budget that is a true reflection of what is required for the plant, and that the plant is unable to change the budget as it has already prepared a “lean” budget. The approach that is taken within a company has a lot to do with the company culture, the relationship

between the plant and the Corporate centre and “normal way of doing things”.

Key issues this year in budgeting are items such as maintenance, headcount and plant efficiency. Many plants will have had maintenance budgets squeezed in the past two years and maintenance activities reduced. Whilst such a strategy can be implemented in the very short term by delaying items such as shutdowns, the impact of reducing maintenance budgets will appear in the second or third year, resulting in a significant increase in breakdowns, reduced plant runtime and increased maintenance costs. Not only will this leave plants with an overspend on the planned maintenance budget, it will leave the plant incapable of running reliably when product is required. This is even more relevant should volumes increase above the planned budget and can lead to loss of sales and/or expensive inter-plant transfers of clinker.

Many plants have been reducing the total headcount on their plants due to vastly reduced sales volumes. One method of (continued on page 2)



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BUDGET 2011 AND CPI SERVICES

reducing headcount is allowing the more experienced personnel to take early retirement, and often such personnel leave at short notice, to ensure that the bottom line benefit is rapidly achieved. Unfortunately, this rapid departure does not allow a transfer of knowledge and experience to the remaining employees at the plant. Therefore, in the budget for 2011, consideration should be given to how some of the experience and resources can be replaced as and when required as volumes increase and improved runtime, output and efficiency is required. This can be a particular challenge to smaller independent groups without access to central technical resources.

It goes without saying that regardless of whether the sales budget for next year is for full operation or for campaign running, the efficiency of the plant is still a key factor—this being the domain of the plant Process Engineer, which is one of the core competencies of **CPI**. The key areas of the plant Process Engineer are the early identification of problem areas, the awareness of the process areas which should be tested, how to interpret the results of the tests and what are the actions corrective actions that should be taken to improve the performance of the plant. **CPI** can provide mentoring and training programmes for graduate and new entrant Process Engineers, teaching the participants of such programs the theoretical and practical aspects of the role. Key areas include:

Pyro-processing line evaluation—heat and mass balance, cyclone and calciner performance, fan efficiency, cooler heat balance and optimisation, coal mill circuit optimisation.

Ball mill testing—axial test, media tests, grinding efficiency calculations, separator efficiency calculations, mill control evaluation, material and gas flow testing.

Vertical mill testing—airflow and port-ring velocity tests, in-leaking air evaluation, heat balance, grindability assessment, material bypass assessment, table and roller wear assessment.

Not only will the **CPI** engineer provide the practical and theoretical background to the process engineers tasks, **CPI** will also provide the necessary spreadsheets for all of the plant measurements and work through the background of the calculations such that the plant Process Engineer has the confidence to perform the tests and calculate the results. Conclusion drawn from the test-work can also be sent to **CPI** for verification.

One final comment in relation to budgets and **CPI** services is that many **CPI** customers wish to use the services of **CPI** but do not plan for the use of such services in the budget. In some cases this means that the desired services from **CPI** have to be delayed, often losing the impetus of plant based initiatives such as optimising a part of the plant, developing plant personnel or new employees, undertaking a plant audit to identify cost saving opportunities or involvement with a new project. If you are considering using **CPI** in 2011, please contact us with an overview of the services that you require, such that we can provide a budget price (and assist in the justification of the spend if required) to include in the 2011 budget—thus avoiding the need to request additional funds for initiatives that are to be launched in 2011.

However you prepare and authorise your budgets within your company, I hope that the process runs smoothly and that the result is satisfactory for a successful 2011.

Mark Mutter—Technical Marketing Director

CONTROL ROOM MENTORING AND DEVELOPMENT

CPI continues to see strong demand for its development and mentoring services for control room kiln burners. Bearing in mind that each extra tonne per hour of clinker produced by a kiln burner can represent an extra 7000 tonnes per year. Even taking a very low margin of \$10 per tonne it is not surprising that such support from **CPI** is in demand as the payback is less than 3 months.

CPI has completed one

final assignment at St Marys Cement, following on from the Operator training modules completed earlier in the year, by having the trainer back on site for a period of one week working with the kiln burners in the control room.

The overall objective of the visit was to identify reasons for the kiln not achieving the maximum output over long periods, and following on from this identifying solutions to the causes of

the drops in kiln output.

The **CPI** expert worked together with the kiln operators reviewing both the manual and automated control system, and left the plant with a set of further recommendations relating to the manual operation of the kiln, modification of the automated kiln control system as well as the interaction between the operators and the control system itself.

PRE-COMMISSIONING AUDIT

CPI has recently completed a pre-commissioning audit of a 10,000 tonne per day plant in the Middle East. A team of a Commissioning Engineer, a Mechanical Engineer and an Electrical Engineer visited the plant for a period of 9 days, with the following objectives:

- To review the overall build quality of the plant and compare the design documents to the actual build plant.
- To identify areas of plant and equipment

that could lead to delays in the commissioning of the plant.

- To identify all areas of concern in relation to Health and Safety and to propose recommendations for the rectification of these issues.
- To review the commissioning plan of the equipment suppliers.
- To generate an action plan for the plant for items

requiring attention in the short, medium and long terms such that the plant would run with high efficiency and high run time.

The audit team completed their study and presented the finding of the audit to both the site project team and the Senior Management team whilst on site, before returning to the UK to provide the Client with the full audit report.

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