

CEMENT PERFORMANCE REVIEW

QUARTER 4 2006

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CPI LAUNCH VARIABILITY CALCULATOR

cpi has recently launched a Variability Calculator on its website. The calculator is a tool for Cement Producers to evaluate and compare their process variability compared to the **cpi** target values.

The Variability Calculator takes the three main materials which are analysed through the process—these being kiln feed, clinker and cement—

and asks the user to input the standard deviation of certain key parameters.

Each parameter is then compared with a target standard deviation and given a weighting dependent upon its overall influence on both the process and product quality. The calculator will give a score both for the individual parameters and one total score for the material stream being measured.

A “traffic light” system has been developed for the interpretation of the results, such that the user can see which parameter and which stream is well controlled and which (if any) need closer attention.

The calculator will also identify at which stage in the process any variability is being introduced.

Links to the description of the calculator and the calculator are provided below along with an image of the result of the calculator itself.

<http://www.cementperformance.com/english/varcalc/>


<http://www.cementperformance.com/english/varcalc/varcalc.php>

Kiln Feed:

Parameter

Standard Deviation

Please choose either "C3S Potential" or "LSF" from the drop-down menu below, then enter your figures.

LSF 	1.5
Silica Modulus	.1
Alumina Modulus	.05
90 micron residue	.9
MgO	2
EqNa2O	.03
<input type="button" value="Calculate"/>	

OVERALL RESULT:

63.33% Variability Performance for Kiln Feed

Based on LSF/SR/AR

71.85% Variability Performance for Kiln Feed

Based on LSF/SR/AR + MgO + Residue control + Alkalis

[For an explanation of your results, click here](#)

CPI TEAM CONTINUES TO EXPAND

The **cpi** team continues to grow. Brian Boon, Roger Griffiths and Sonia Moorhouse have all joined to ensure that **cpi** has the resources to serve its growing client base.

Brian has over 20 years' experience in cement having worked at Rugby cement in various

technical and managerial roles, as well as a period at Hoganans refractory.

Roger is a chemical engineer who has spent the past 4 years at Lafarge Northfleet works, with a specialization in cement milling and coal grinding.

Sonia is a linguist and

has been working for **cpi** on a part time basis for over a year. Her new responsibilities see her developing administration procedures, liaising with clients for forward planning and organising associates' travel arrangements. Sonia also administers the Technical Queries system (see P4).



Brian Boon — one of **cpis'** new team members

CPI IN CHINA

cpi has made its first move into China. Peter Dover, Technical Director of **cpi**, recently visited China with the Argos Group project team.

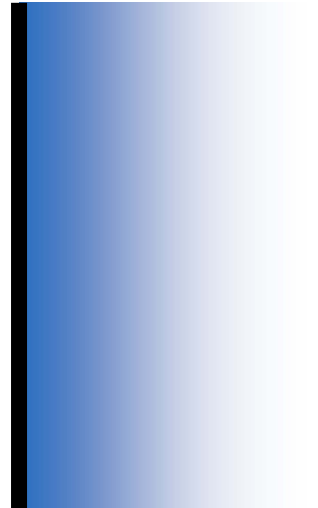
The team visited two cement plants and also the design centre of Tianjin Cement Industry Design and Research

Centre (TCDRI).

The purpose of the visit was to review the technology used by TCDRI and also the supply capabilities and technical resources at the centre.

The visits to the two cement plants were organized to

demonstrate the capabilities of TCDRI in installing large capacity plants on time and within budget. The visit was related to the new kiln line project at the Colclinker site which will be operational in 2009. The planned clinker capacity of the line is 5000 tonnes per day.



APCAC CONFERENCE COLOMBIA

This year's APCAC conference was hosted by the Argos Group in Cartagena in Colombia. The conference was attended by Allison Riser, Peter Dover, Sonia Moorhouse and Alan Lorimer.

Representatives of Argos presented two papers which detailed the results of the optimization program that **cpi** and Argos have put in place to improve technical performance and therefore profitability for the group.

cpi are continuing their strong working relationship with Argos, adding value via a continuous improvement programme and technical support for capital projects, as mentioned above.



Roger Griffiths and Sonia Moorhouse with **cpi** President Allison Riser at APCAC

2007 TRAINING

cpi is in the final stages of organizing its open training course for 2007. The three day course will be at Gatwick airport in June and will be entitled "Profitability and Performance from Cement Operations".

As suggested by the title, the course will focus on the technical methods to

ensure profitability is maximized from existing cement plant operations. The course will cover topical issues such as Alternative Fuels and CO2 emission reductions, as well as organizational issues such as maintenance strategy and information technology usage.

The course is highly interactive with case studies and group course work, and the face-to-face training gives participants the opportunity to network and discuss common issues, a benefit which is missed in other forms of training such as internet based courses.



One of the cement plants in China recently visited by Peter Dover

STRATEGIC ANALYSIS- WORLD CEMENT

cpi company president, Allison Riser, has recently written an article for a new publication from World Cement. The publication will be entitled "Emerging Markets 2007" and will focus on the outlook for the worlds developing cement markets.

The article draws on the collective experience of **cpi** in the micro-strategic issues that should be reviewed when a new cement plant is being designed and installed. **cpi's** involvement in a large number of major global projects indicates that both capital and

operating costs can be significantly reduced if the micro-strategic issues are addressed at an early stage. The article will be available (once published) on the **cpi** website at www.cementperformance.com under the published papers section.

PROCESS ENGINEERS COURSE IN COLOMBIA

cpi has just completed a training course in Colombia for the Process Engineers of the Argos Group. Over twenty engineers participated in the course which covered all of the aspects of cement technology.

As with all of the Cement Performance training events the course was fully interactive with the participants solving problems set by the trainers to demonstrate their learning.

At the end of the week there was also a written test for the participants, which was assessed by **cpi**.



TECHNICAL QUERIES SYSTEM

cpi has recently launched its Technical Queries System. The system allows the users access to the **cpi** experts regardless of location or time-zone.

The system works on a ticketing system basis, so that each query has a unique number and can always be traced through the system. The user

simply sends in the query to the **cpi** central database, from where it is assigned to the most appropriate expert to answer the question. The response is sent back to the database where it is reviewed and returned to the user.

All of the queries stay in the company specific database, so as more

queries are submitted the bigger the company reference technical database becomes.

Users tend to be process engineers, plant chemists, production managers and plant engineers. **cpi** charge a small monthly fee for this service dependent upon the number of users and sites covered.

Due to the language capabilities of the **cpi** team queries can be submitted in one of three languages - English, Spanish and French.

Open Tickets				
all #	Requester	Status	Created	Owner
<input type="checkbox"/> 000209	Thicknners	With Associate	20/10/2006, 8:27pm	rogergriffiths
<input type="checkbox"/> 000208	Fan 2 on IKN section	Awaiting Client Reply	11/10/2006, 5:50pm	alandjlorimer
<input type="checkbox"/> 000207	Ball charge Cement Mill 1	With Associate	11/10/2006, 5:25pm	chrisholt
<input type="checkbox"/> 000204	Speed across throat in cooler	Awaiting Client Reply	19/09/2006, 8:05pm	alandjlorimer
<input type="checkbox"/> 000203	Momentum	With Associate	15/09/2006, 7:08pm	alandjlorimer
<input type="checkbox"/> 000202	air for kiln seal	Awaiting Client Reply	15/09/2006, 5:11pm	
<input type="checkbox"/> 000201	Consult about our fine coal bin	Awaiting Client Reply	06/09/2006, 3:24pm	peterdover
<input type="checkbox"/> 000199	low calcium carbonate limestone as filler	Awaiting Client Reply	25/07/2006, 2:11pm	johnhawley
<input type="checkbox"/> 000193	Sulphates dont fix on clinker.	Awaiting Client Reply	28/06/2006, 4:21pm	johnhawley
<input type="checkbox"/> 000191	chain system	Awaiting Client Reply	14/06/2006, 7:59pm	alandjlorimer

A view of the Technical Queries Ticketing system—showing type of questions, the status of the query, and the **cpi** associate answering the request. This view is available to both the **cpi** and the client administrator.

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CONTACT US

The team at **cpi** is always happy to get feedback from its stakeholders. Whether it is about the website, items within this newsletter, the

enquiries@cementperformance.com

You can also contact us via the website or at