

PATERSON & COOKE PRESENTS: 17th ANNUAL FOUR DAY COURSE ON

# The Design of Slurry Pipeline Systems

06-09 MARCH 2012

THE BREAKWATER LODGE, VICTORIA & ALFRED WATERFONT, CAPE TOWN, SOUTH AFRICA



## Course Introduction

Slurry pipelines are widely used in industrial and mining operations. However, slurry pipeline systems are frequently characterised by operational problems and high running and maintenance costs. This is often due to inadequate design associated with a lack of understanding of the flow behaviour of two phase solid liquid mixtures.

The implementation of a reliable slurry pipeline system requires that all parties involved have a sound understanding of the underlying flow mechanisms of the slurries. Our course addresses this need and provides delegates with a working knowledge of slurry pipe flow theory.



## Objectives

The aim of the course is to introduce delegates to the fundamental concepts of solid-liquid flows in pipelines and to apply these concepts to the design of slurry pipeline systems.

## Content, Programme & Notes

The intensive four day course consists of twelve lecture sessions, three design sessions and slurry flow behaviour demonstrations. The programme and course content are detailed overleaf. Each delegate is issued with a comprehensive set of reference notes covering the topics discussed. Scientific or engineering calculators are essential for the design sessions.

## Presenters

The course is presented by Dr Angus Paterson, Mr Graeme Johnson, Mr Peter Goosen and Mr Michael Fehrser of Paterson & Cooke.

## CPD Credits

The Slurry Pipeline Design Course is accredited for four ECSA Continuing Professional Development (CPD) credits by the South African Institute of Mining and Metallurgy (SAIMM).

## Dates & Venue

The course will be held in March 2012 at the Graduate School of Business, The Breakwater Lodge, Victoria & Alfred Waterfont, Cape Town, South Africa. The course dates are: Tuesday 06 - Friday 09 March 2012. Please book as early as possible as numbers are limited. A second provisional course is planned from Tuesday 13 - Friday 16 March 2012 should there be sufficient demand.

## Optional Laboratory Visit

An optional pre-course visit to Paterson & Cooke's slurry testing facility has been arranged from 14:00 - 17:00 on Monday 05 March 2012 with a second visit provisionally booked for Monday 12 March 2012. Transport will be arranged from the course venue. Booking is essential.



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## Who Should Attend

The course is aimed at all professionals involved in solids handling in the mining, chemical, industrial and engineering fields. These include:

- Mechanical Engineers
- Mineral Process Engineers
- Mine Engineers and Metallurgists
- Consulting Engineers
- Manufacturers and Suppliers.

## Fees & Registration

The course fee is R 18 500 per person including V.A.T. Registrations with payments received before 30 November 2011 are entitled to a 10% discount. A cancellation fee of 25% will be charged for written cancellations received before 14 January 2012. No fees will be refunded for cancellations after this date. The [course registration](#) form is available on our web page at [www.PatersonCooke.com](http://www.PatersonCooke.com). Confirmation of registration will be sent on receipt of the completed form and course fee payment.

## Accommodation

Delegates are responsible for their own accommodation. A list of suggested hotels is available on request. It is advisable to book as early as possible.

## Contact

If you have any queries, please contact Terry Carolin on tel: (021) 683 4734, fax: (021) 683 4168 or e-mail: [TerryC@PatersonCooke.com](mailto:TerryC@PatersonCooke.com).

## Course Programme

Session	Tuesday	Wednesday	Thursday	Friday
07:45–08:00	<b>REGISTRATION (UNTIL 08:15)</b>	Tea/Coffee	Tea/Coffee	Tea/Coffee
08:00–10:00	Course introduction Water pipeline hydraulics	Settling slurries	Rheology and non-Newtonian slurries	Mixed regime slurries
10:00–10:30	Morning tea	Morning tea	Morning tea	Morning tea
10:30–12:00	Pump types Centrifugal pump characteristics	Slurry pipeline hydraulics	Rheology and non-Newtonian slurries	Slurry system applications Case studies
12:00–13:00	Lunch	Lunch	Lunch	Rheology measurement review Closure
13:00–14:00	Introduction to slurry flow	Pump station design	Pipeline design	Tea and light refreshments (13:30)
14:30–15:00	Afternoon tea	Afternoon tea	Afternoon tea	
15:00–17:00	<i>Design Session 1</i> Water pipeline system <i>Demonstration 1</i> Hydraulic grade line, settling slurries	<i>Design Session 2</i> Settling slurry system	<i>Design Session 3</i> Non-Newtonian slurry systems <i>Demonstration 3</i> Rheology measurement	
Evening	Free evening	Boat cruise	Free evening	



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