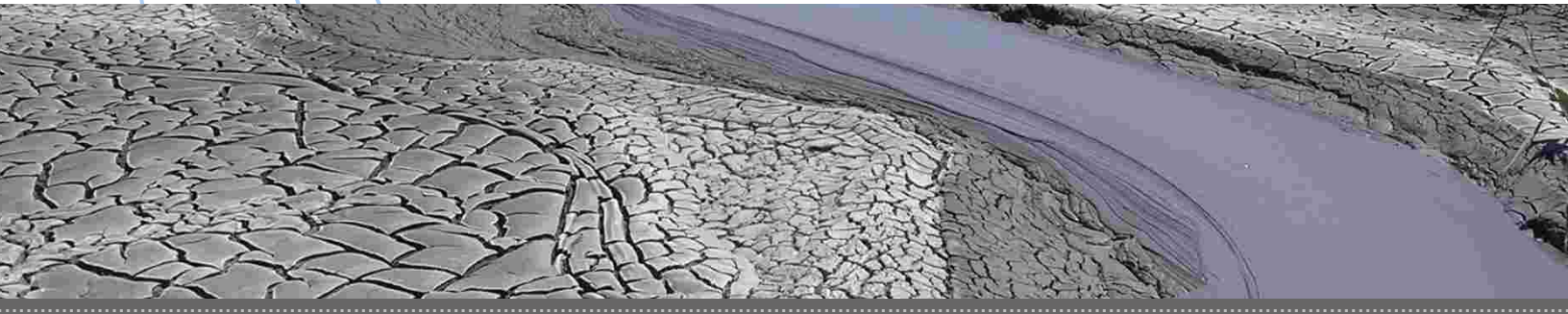


PATERSON & COOKE PRESENTS:

# Paste and Thickened Tailings

27-30 OCTOBER 2009

HELD AT: THE COLORADO SCHOOL OF MINES, GOLDEN, COLORADO, USA



## Course Introduction

Paste and Thickened Tailings (P&TT) has developed into a mature technology with wide application in mine tailings management. In the next few years we will witness large scale adoption of P&TT technology with the commissioning of several systems operating at 100,00 tpd.

The successful implementation of P&TT technology is dependant on a sound understanding of slurry colloidal behavior, thickening and thickener operation, rheology, pump and pipeline transport systems, and disposal methodologies.



## Objectives

The course objectives are:

- An introduction to the fundamental concepts related to thickening, transportation and deposition of paste and thickened tailings.
- To demonstrate the application of these concepts to the design and implementation of appropriate cost effective P&TT systems.

## Content & Program

The intensive four-day course consists of 14 lecture and workshop sessions. Each participant is issued with a comprehensive set of notes and reference materials. Calculators are required for example calculations performed during the lecture sessions.

## Presenters

The course is presented by Prof. Andy Fourie of the University of Western Australia, and Dr. Robert Cooke and Fredré Dunn of Paterson & Cooke.

**Andy Fourie** has more than 25 years industry and research experience in the management, transportation and disposal of mining waste. Andy's areas of expertise include management and disposal of mining waste, minefill, soil mechanics, tailings behavior, paste technology and environmental geomechanics.

**Robert Cooke** has over 20 years experience in the design of slurry pipeline systems. He has been directly involved in the implementation of a large number of paste tailings and underground backfill systems.

**Fredré Dunn** has more than 10 years of metallurgical experience and has been involved in the development of paste and thickened tailings disposal systems within the De Beers Group. She has worked on paste thickening projects across various mineral industries in Africa and North America.

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## Who Should Attend

The course is designed for all professionals involved in paste and thickened tailings applications, including:

- Geotechnical engineers
- Chemical and mineral processing engineers
- Mechanical engineers
- Operations engineers
- Consulting and design engineers
- Equipment and reagent vendors.

## Dates & Venue

The course will be held from Tuesday, October 27, through Friday, October 30, 2009 in Ballroom A of the Student Center on the campus of the Colorado School of Mines in Golden, Colorado.

## Fees & Registration

The registration fee for this course is \$1,995 (US) if received by September 7, 2009. The fee is \$2,195 (US) after that date. Payment must accompany the application form. Enrollment applications will be accepted in the order received. To register on-line, use the following web address:

<http://www.csmospace.com/register.php?c=102>

*The sponsor reserves the right to cancel the course and return registration fees if enrollment is insufficient. Personnel substitutions may be made at any time without penalty. Cancellations will be charged a \$250 service fee. No refunds will be made to participants who fail to substitute or cancel at least 5 working days prior to the start of the course.*

## Contact

Registration Enquiries: Office of Special Programs and Continuing Education (SPACE) Colorado School of Mines, Golden, CO 80401. Tel: 303/273-3321; Fax 303/273-3314; [space@mines.edu](mailto:space@mines.edu)

Technical Enquiries: Robert Cooke, [RobertC@PatersonCooke.com](mailto:RobertC@PatersonCooke.com)

## Course Program

Session	Tuesday October 27	Wednesday October 28	Thursday October 29	Friday October 30
07:45 – 08:00	Tea / Coffee	Tea / Coffee	Tea / Coffee	Tea / Coffee
08:00 – 10:00	Registration (till 8:30) Course Introduction P&TT Introduction	Pipeline Systems Slurry Types	Geotechnical Properties of Tailings	Implementing Paste Systems - Discussion Workshop
10:00 – 10:30	Morning Tea	Morning Tea	Morning Tea	Morning Tea
10:30 – 12:00	Slurry Behavior Coagulation and Flocculation	Rheology	Fundamentals of Tailings Geotechnics	Project Discussions Course Review
12:00 – 13:00	Lunch	Lunch	Lunch	Course Close
13:00 – 14:30	Thickening Fundamentals Thickener Technology	Pump and Pipeline Hydraulics	Methods of Disposal	
14:30 – 15:00	Afternoon tea	Afternoon tea	Afternoon tea	
15:00 – 16:30	Thickening Operation and Water Recovery Case Studies	Transport System Engineering Case Studies	Stability Issues Case Studies	