

## **Overview**

Slurry pipeline transportation is a field that is not adequately covered in undergraduate engineering courses. Consequently, engineers are generally ill-equipped when faced with the task of designing a slurry transportation system or troubleshooting an existing installation.

The Saskatchewan Research Council (SRC) and Paterson and Cooke (P&C) have joined forces to offer a comprehensive course in slurry pipeline design and operation. SRC has conducted hundreds of slurry pipeline R&D programs and developed a primarily mechanistic model describing the pipeline flow of settling slurries. P&C is an internationally recognized firm that has designed numerous slurry handling installations throughout the world.

The course focuses on applying the basic principles of slurry pipeline flows to actual design situations. This course will provide an excellent opportunity for people involved in slurry transportation to meet in an informal environment, to share experiences and to foster a uniform technical language and approach for slurry flow analysis.

The course will run from 8:00 a.m. on June 13 until noon on June 16. A casual reception will be held on the evening of Tuesday, June 13, at Congress Beer House.



Established in 1960, SRC's Pipe Flow Technology Centre™ is acknowledged as an international leader in its field.

## Who should attend:

All professionals involved in solids handling in the mining, chemical, industrial and engineering fields, who have not previously taken the Slurry Pipeline Systems Course. Previous courses have been attended by: process engineers, equipment reliability and maintenance engineers, mining engineers, metallurgists, consulting engineers and equipment suppliers.







## **Course objectives:**

Participants will learn about the principles governing the pipe flow of slurries and will be able to apply appropriate scale-up methods for the design of fine-particle (homogeneous) and coarse-particle (settling) slurry pipelines. This course is designed to offer a comprehensive overview of the key considerations for, and unique challenges encountered in the design, implementation and operation of slurry pipeline systems.

## **Course content:**

- Rheology: Newtonian and non-Newtonian slurries
- Friction losses for fine-particle (homogeneous) slurries
- Friction losses for coarse-particle (settling) slurries
- Minimum operating velocities
- Use of the SRC Pipe Flow Model for slurry flow calculations
- Slurry pump performance and selection criteria
- Hydraulic design of slurry systems
- Class examples to illustrate key concepts
- Laboratory measurements and data analysis (conducted at SRC's Pipe Flow Technology Centre™)

# You Will Need To Bring:

- A calculator is required for the design sessions.
- A laptop computer is required to run the SRC Pipe Flow Model software.
- PPE is required for visiting SRC's facility.

# **REGISTRATION FEE**

\$3,000 + applicable taxes

## Register by May 26, 2017

Complete the attached registration form and fax (or e-mail a scanned copy) to:

#### **Leanne Crone**

T: 306-385-4107

E: leanne.crone@src.sk.ca

F: 306-933-7446

# Course registration fee includes:

- Pipe Flow Model software to assist with the design calculations
- Comprehensive course notes
- · Copies of the course presentation material
- Hands-on laboratory data collection and analysis, conducted at SRC's Pipe Flow Technology Centre™
- Lunch and coffee/tea breaks
- Casual reception on Tuesday, June 13, 2017

#### **Accommodation:**

Although there is no preferred hotel, buses will run from the **Delta Bessborough Hotel** in downtown Saskatoon to Innovation Place. Other downtown hotels include:

- Sheraton Cavalier Hotel
- · Radisson Hotel

Please note there tends to be shortage of hotel space in Saskatoon, so early bookings are recommended.

## **Instructors:**

## **Dr. Robert Cooke**

Paterson & Cooke • Denver, CO, USA

#### Dr. Sean Sanders

University of Alberta • Edmonton, AB

## **Dr. Ryan Spelay**

SRC Pipe Flow Technology Centre<sup>™</sup> • Saskatoon, SK

## SRC/P&C

# **Slurry Pipeline Systems Course**



Innovation Place - Candle/Span Room The Atrium 111 Research Drive Saskatoon, SK, Canada

Registration Fee \$3,000 + applicable taxes (Hotel registration not included)

	REGISTRATION	FORM -	Please	print and	complete
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Name:		
Company:		
A .l.l		
City and Province/	State:	
Postal Code:	Country (If not Canada):	
Email:		
Phone:		Fax:
Invoice my co		YMENT
Email:		
Visa	Account Number: _	
Mastercard	Expiry Date:	
	Cardholder Name: _	
Sorry, we are unable to	o accept American Express.	
Regis	tration / Fee Payme	nt Deadline is May 26, 2017

\*\* A spot in the course will be reserved for you upon receipt of the Registration Fee.

Fax or Email completed form to Leanne Crone