



# NASTT's Cured-in-Place Pipe Good Practices Course

Wednesday, November 16, 2011  
Coast Plaza Hotel – Calgary, Alberta



The Northwest Chapter of the North American Society for Trenchless Technology (NASTT-NW) is pleased to sponsor a special one-day Cured-in-Place Pipe (CIPP) course, Wednesday, Nov. 16, 2011, at the Coast Plaza Hotel in Calgary, Alberta in conjunction with the Northwest Trenchless Conference.

**You Need to Know CIPP Lining!** Cured-In-Place Pipe (CIPP) technology is an effective trenchless pipeline rehabilitation method that may help to address many of your city's water and wastewater problems. CIPP is one of the most widely used and accepted pipeline rehabilitation methods. It significantly reduces infiltration and ex-filtration. CIPP is cost-effective and increases flow capacity. Because it is trenchless, traffic congestion and site disruption are significantly reduced. *Learn more about the benefits of the CIPP process by attending this special one-day course, Nov. 16<sup>th</sup> in Calgary!*

**Course Objective:** The CIPP course is geared to provide an in-depth overview of wastewater mainline and lateral pipe rehabilitation using CIPP from planning and design to job completion.

**CIPP Course Topics:** CIPP Definition, Description, Background and Methods; CIPP Application Range in Trenchless Rehabilitation; Design of CIPP for Gravity Applications; Design of CIPP for Pressure Applications; Construction and Installation; Specifications and Tendering; and Inspection and QA/QC.

**Course Instructors:**

**Kaleel Rahaim** is a graduate Chemical Engineer from Mississippi State University. He has experience in many different aspects of Engineering such as project and process engineering and has been involved in the thermoset polymer industry for almost 30 years. His current position is Business Manager, Pipeline Remediation Polymers for the Thermoset Resins Division of Interplastic Corporation. He also serves on the NASTT Board of Directors and is involved in other trade organizations for the trenchless remediation industry.

**Chris Macey, P. Eng.** is the National Technical Specialist for UMA|AECOM Canada's Community Infrastructure Market Sector. He is a recognized expert on pipe-soil interaction design principles and in the application of trenchless technologies to rehabilitate underground sewer and water infrastructure. Chris has worked on the application of trenchless and minimum excavation technologies to rehabilitate underground infrastructure in Cities across North America for over 30 years. Chris' has had hands-on experience in the application of CIPP technology for over 25 years. Chris received his Bachelor of Science in Civil Engineering from the University of Manitoba, Canada in 1977 and has worked for UMA Engineering in the Municipal Engineering field since 1978.

**Continuing Education Units (CEUs):** Earn valuable CEUs for your attendance and participation. (One CEU = 10 Professional Development Hours). By attending this course, you will earn 0.8 CEUs and receive a certificate issued by Louisiana Tech University.

**Who Should Attend?** Engineering consultants; utility engineers and managers; government engineers and public works managers; contractors; and others with responsibilities for implementing or managing construction projects using trenchless construction techniques.

**Registration Fees:** *Register early & save money!* On or before 10/20/11: \$325 member/\$425 non-member. After 10/20/11: \$350 member/\$450 non-member. Student Rate: \$150. To receive the discounted member rates, registrants must be current 2011 members of NASTT. Please note there is a separate registration fee to attend the conference on Nov. 17.

Your course registration fee includes:

- Continental breakfast, breaks and lunch
- CEU certificate issued by Louisiana Tech University
- Comprehensive, consensus-based information, non-commercial presentation
- Expert course instructors who are leaders in their respective fields and can help answer your questions not outlined in the course agenda

**NASTT's CIPP Good Practices Course Agenda:**

7:30 AM	Continental Breakfast & Check-in
8:00 AM	Opening Remarks & <b>Part 1 - Introduction</b>
9:00 AM	<b>Part 2 - Design &amp; Construction of CIPP</b> <ul style="list-style-type: none"><li>• Description, history &amp; methods</li></ul>
10:00 AM	Break
10:15 AM	<b>Part 3 - CIPP Application Range in Trenchless Technologies</b> <ul style="list-style-type: none"><li>• Types of pipelines used in CIPP process</li><li>• Practical size, shape &amp; length limitations</li><li>• Types of CIPP materials</li><li>• Basics of how CIPP interacts with other materials</li><li>• Typical problems that can be addressed using CIPP</li><li>• Practical advice on where, when and how to apply CIPP liners</li></ul>
11:15 AM	<b>Part 4 - CIPP Testing</b> <ul style="list-style-type: none"><li>• Liner properties for liner design</li><li>• Liner compatibility with waste stream</li><li>• Design Requirements</li></ul>
Noon	Lunch
1:00 PM	<b>Part 5 - Design Considerations for Gravity Pipelines</b> <ul style="list-style-type: none"><li>• Wall thickness for a CIPP liner</li><li>• Existing pipeline problems</li><li>• Problem(s) in the liner's design</li></ul>
1:45 PM	<b>Part 6 - Key Notes for a Successful Project</b>

- Selection of right materials & process
- Design by an experienced, registered engineer
- Clear & detailed well-written tender & contract specifications
- Field quality control & quality assurance program

2:45 PM Break

3:00 PM **Part 7 - Inspection & QA/QC**

- Compliance with by-laws & safety regulations
- Contract specifications
- Documentation
- Protection of owner's interests
- Public relations

4:30 PM Q&A Period, Closing Remarks & Course Evaluations

5:00 PM Course Adjourned

*Agenda is subject to change.*

**To Register:** Visit the online registration site at <http://www.nastt-nw.com>, or contact Event Plan at 403-247-0321 or e-mail: [info@eventplan.net](mailto:info@eventplan.net).

**For Course Content Questions:** Contact Angela Ghosh at NASTT. Phone: 703-217-1382 or e-mail: [aghosh@nastt.org](mailto:aghosh@nastt.org).

**Course Location:**

The Coast Plaza Hotel & Conference Centre  
 1316-33 Street NE  
 Calgary, Alberta  
 Canada T2A 6B6  
 Tel: 403-248-8888  
 Fax: 403-248-0749

**About the NASTT-NW Chapter:** The Northwest Chapter covers the provinces of Alberta, Manitoba and Saskatchewan. For more information about the chapter, visit [www.nastt-nw.com](http://www.nastt-nw.com).