



# *The Western Palmetto Informer*

American Institute of Chemical Engineers

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## Contact Information

Visit our website:

<http://www.wscaiche.org>

Email us at:

[sec@wscaiche.org](mailto:sec@wscaiche.org)

## Message from the Chair

By: Austin Crooks

I hope everyone is ready for a new and exciting year for the Western South Carolina Section of AIChE. In the midst of the current economic situation, it is especially important to maintain professional relationships and foster new relationships outside of your current work environment. As the new chair, I want to extend a special invitation to every chemical engineer in the upstate and surrounding areas to participate in this year's events. The WSC AIChE officers and executive committee have worked diligently to provide an array of interesting speakers this year. I thank you in advance for your participation, and I look forward to seeing you at the meetings this year.

## September Meeting: Vacuum Pumping for Industrial and Chemical Applications



Please join us for Mr. Rick Vanvorous' presentation on "Vacuum Pumping for Industrial and Chemical Applications" on September 15th. Vacuum systems needs in the industrial and chemical industry are continually changing. Advances in process requirements have necessitated improved product design, new materials of construction, automation, and pumping techniques. Simultaneously, energy and environmental requirements have forced companies to consider alternatives that never would have been considered five years ago.

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The presentation will cover the claw, roots, screw and tongue and groove pump designs that are available on the market today, where they are commonly used, and the economic reasons for considering dry vacuum and conventional steam jet vacuum pumping. Advantages and disadvantages of each approach will be covered. Examples comparing the economics and environmental implications comparing traditional steam ejector pumping system to mechanical vacuum pumping systems will be covered.

Mr. Vanvorous has been with Pfeiffer Vacuum for 26 years working in a variety of capacities. Positions include Sales and Applications Specialist for mass spectrometry. He has been involved as a Senior Sales Engineer and Project Leader for specialized projects involving vacuum pumps for the past 15 years. He has assisted with vacuum design on projects ranging from semiconductor and solar manufacturing plants, to portions of the Antimatter Trap (ATRAP) built at Los Alamos National Lab for use in CERN, and the Spallation Neutron Source (SNS) experiments in Oak Ridge, Tennessee.

Rick has a BS in Business with many credits in physics from the University of Colorado-Boulder. He loves how physics explains how things work but has also realized that an undergraduate physics degree was not a means to reasonable income in the 1970's. The mixture of technical, hands on work, and business experience has enabled him to understand the technical and business sides of projects.

Mr. Vanvorous is a past Secretary and former board member of the American Vacuum Societies in Colorado and New Mexico. He is a former Vice Chairman of the American Vacuum Society in the MidAtlantic region. He has taught classes on helium leak detection, quadrupole mass spectrometry and vacuum pumping through the AVS and as a contractor in industrial settings.

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## September MEETING SUMMARY

**DATE:** Tuesday, September 15, 2009  
**TIME:** 6:00 PM Social  
6:30 PM Dinner  
7:00 PM Presentation  
**LOCATION:** Hilton, Greenville  
45 West Orchard Park Drive  
Greenville, SC 29615  
**DIRECTIONS:** I-385 @ Haywood Road Exit #39  
**COST:** \$10 for Members  
\$15 for Non-members  
Free to Attend Presentation Only

Please reply to Secretary Jeremiah Batiste at [sec@wscaiche.org](mailto:sec@wscaiche.org) by  
NOON Friday, September 11, 2009.

Note that the dinner portion of the meeting is not mandatory. Arrive by 7:00 pm if you want to attend the presentation without dinner.

Only RSVP if you plan to dine with us.

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### SWE Plant Tour of 3M - Thursday, Sept. 24, 2009

The Western Carolina Section of SWE (Society of Women Engineers) has a limited number of spaces available for a plant tour of 3M at the Donaldson Center here in Greenville on Thursday, Sept. 24th. (Please see below for details.) If interested, please email Mary Ferris at [MaryFerris@charter.net](mailto:MaryFerris@charter.net) by Friday, Sept. 18th with your name and company name. Since SWE members have priority and attendance is limited, available spaces for AIChE members will be filled on a first come, first serve basis. You will be notified if there is room for you on the tour.

**Date:** Thursday September 24<sup>th</sup>

**Time:** 5:15-7:30PM

**Where:** 3M Manufacturing Site, 1400 Perimeter Rd (Donaldson Center)  
Greenville, SC 29605

**What:** Tour of the Tape Plant and Film Plant

**Tentative Agenda:**

5:15-5:30PM: Meet at the guardhouse and review safety procedures

5:30-6:30PM: Tour of the Tape Plant (polypropylene film line, coaters and converting)

6:30-7:30PM: Tour of the Film Plant (1 of the 3 polyester film lines and possibly sheet converting if they are running)

## August CCPS Process Safety Beacon Highlights

### **Never Underestimate the hazard!**

- Know the hazards of **all** chemicals you work with, even if you only use small quantities. Don't forget any chemicals that are only used in small amounts in your plant's quality control laboratories.
- Respect all hazardous materials, even if you handle them in small quantities.
- Make sure that you are fully trained on all plant sampling operations, and on how to use any special equipment required to safely take and transport samples.
- Understand what kind of protective clothing and personal protective equipment is required to protect yourself from the hazardous materials you work with, and **always use all** of the required protective clothing and equipment, including when working in the laboratory.
- Know where to find, and how to use, emergency equipment such as safety showers and eye wash stations when you are handling chemicals.
- Always use the required containers for taking samples, and proper sample carriers for transporting samples.
- When you take a sample to a laboratory, make sure that you follow procedures to ensure that it is received by qualified laboratory personnel, and that they know what is in the sample container, including proper labeling.

[www.aiche.org/CCPS/Publications/Beacon/index.asp](http://www.aiche.org/CCPS/Publications/Beacon/index.asp)

## 2009-2010 Calendar of Events

DATE	LOCATION	TOPIC
15 Sep 2009	Hilton	Pfeiffer - Vacuum Pumping for Industrial and Chemical Applications
24 Sep 2009	3M	SWE Plant Tour of 3M
20 Oct 2009	Clemson University	Beta Engineering - Power Systems / Electrical Distribution Systems 101
17 Nov 2009	Hilton	QLI International - Personal Goals
12 Jan 2010	Hilton	ANSYS - Computational Fluid Dynamics
13 Feb 2010	Roper Mountain Science Center	Kids Engineering Day
16 Feb 2010	Hilton	TBD - Clemson University Provided Speaker
16 Mar 2010	Hilton	WESCO - Safety Systems 101
20 Apr 2010	TBD	Plant Tour
May 2010	Fluor Field	Social

*Active participation in professional societies as well as attending our professional and technical presentations count towards Continuing Professional Competency requirements for Licensed Professional Engineers. Upon request, the Section Secretary can provide attendance verifications for this purpose to our members.*

## 2009-2010 Officers and Executive Committee

Many thanks to the continued efforts of those in providing leadership to our Section. Members with a desire to serve can contact any Officer or Executive Committee member.

POSITION	NAME	EMAIL	PHONE
Chair	Austin Crooks	austin.crooks@fluor.com	864-281-4635
Vice-Chair	Rick Vogel	rick.vogel@fluor.com	864-281-6702
Secretary	Jeremiah Batiste	sec@wscaiche.org	864-281-6409
Treasurer	David Laursen	david.laursen@fluor.com	864-281-5981
Historian	Aaron Ross	aaron.ross@fluor.com	864-281-5274
Webmaster	Eugene Gill	eugene.gill@fluor.com	864-281-8627
Other Executive Committee Members are: Oren Webb, Mary Ferris, David Harshbarger, Ann Marie Jones, and James Young.			