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Contact Information

Visit our website:

<http://www.wscaiche.org>

Email us at:

sec@wscaiche.org

January Meeting Thank You

WSCAICChE would like to extend a thank you to Dr. Robert Harwood and Dr. James Leylek for presenting a wonderful presentation on ANSYS – Computational Fluid Dynamics and its application at Clemson’s CU-CCMS. This very informative presentation was attended by about 20 people.

February Meeting: Carbon Footprints - An Existential Mix of Science, Politics, and Philosophy



This talk explores the concept of carbon footprints, including such questions as:

- What are they?
- How are they determined?
- Who makes the rules?
- How are they used once they are determined?
- Where is this going in the future?

Charlie Gooding earned BS and MS degrees at Clemson University and a PhD at NC State, all in chemical engineering. He has been a member of the faculty at Clemson since 1980 and has served terms as Department Chair and President of the University Faculty Senate. Currently his efforts are focused on teaching the senior level unit operations lab and courses in process design and control. He conducts applied research related to these topics. Recently he has been helping a national industry association determine the carbon footprint of its operations.

February MEETING SUMMARY

DATE: Tuesday, February 16, 2010
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 by NOON Friday, February 12, 2010. Remember to include any dietary restrictions.

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.

Sponsoring Opportunities

We would like to offer a sponsorship opportunity to any organization that would like to advertise in our newsletter. Rates for advertisements are as follows:

	1 Issue	3 Issues	7 Issues
Banner (6" x 1.5")	\$50	\$135	\$290
Half Page	\$70	\$190	\$400
Full Page	\$120	\$330	\$685

We are also offering single meeting sponsorships for \$500 which includes up to a full page advertisement in that month's newsletter and recognition at the monthly meeting. Please contact Jeremiah Batiste at sec@wscaiche.org for more information.

May Social - Greenville Drive Baseball Game May 21st 2010

The great turnout from the last several year's WSCAICH family night brings us back to another great social at Fluor Field at the West End to watch a Greenville Drive baseball game and fireworks. The Augusta GreenJackets will play at Fluor Field versus the Greenville Drive on May 21st at 7:00 pm. WSCAICH has reserved seats and will help provide dinner for members and their families. Tickets are \$10 in advance. The Treasurer will provide each local member and immediate family members \$10 towards dinner for the night (\$10 - \$10 = **FREE!!**). **Tickets are only available for the first 50 RSVPs.** RSVP at sec@wscaiche.org.

January CCPS Process Safety Beacon Highlights

Corrosion and Erosion



Mechanical integrity is one of the biggest challenges for an effective process safety management program. Think about it – in your plant, there may be hundreds of vessels, thousands of feet of pipe, and hundreds of pumps, compressors, instruments, and other equipment. All of it must be kept in good operating condition to ensure safe, reliable, and profitable operation. Management of corrosion and erosion of process piping and equipment must be a major component of any effective mechanical integrity program.

The pictures show some examples of corrosion and erosion problems which were identified in plant inspections. (1) and (2) – external corrosion of pipes in a plant; (3) – close up of erosion damage to the face of a flange; (4) – close up of eroded body and seat of a gate valve; (5) – erosion damage on the body of a valve.

Do you know?

- **Corrosion** is the deterioration of metal by electrochemical reaction with substances or microbes in its environment. These substances can be process materials contained in a vessel, pipe, or other equipment, or materials in the outside environment – for example, water, salt, or contaminants in the atmosphere. The rusting of steel is an example of corrosion.
- **Erosion Corrosion** is the degradation of material surface due to mechanical action, often by impinging liquid, abrasion by slurry, or particles, bubbles, or droplets suspended in fast flowing liquid or gas.
- Corrosion has been responsible for major losses in the process industries. For example, in 2006, part of a major oil field had to be shut down for several months because of multiple oil spills resulting from severe pipeline corrosion.

What can you do?

- Understand mechanical integrity programs in your plant, and your role in ensuring that these programs are effective.
- Observe pipes, vessels, and other equipment when you are working in the plant. Look for stains on the outside of insulated lines and other signs of damaged or corroded equipment. Follow up to make sure that repairs are made.
- If you are taking piping or equipment apart, look for evidence of corrosion damage – for example, corrosion under insulation, internal corrosion in pipes or other equipment, damage to flanges or valves.
- When replacing pipes, valves, or other equipment, be careful to use the same material of construction.
- Understand the corrosion and erosion corrosion properties of materials in your plant, and what you must do to minimize corrosion problems.

<http://sache.org/beacon/products.asp>

2009-2010 Calendar of Events

DATE	LOCATION	TOPIC
13 Feb 2010	Roper Mountain Science Center	Kids Engineering Day
16 Feb 2010	Hilton	Carbon Footprints - An Existential Mix of Science, Politics, and Philosophy
16 Mar 2010	Hilton	WESCO - Safety Systems 101
20 Apr 2010	TBD	Plant Tour
21 May 2010	Fluor Field	Social

Reminder: Roper Mountain Science Center - Second Saturday, February 13th **KIDS ENGINEERING**

For Engineering Day, February 13, 2010, we will again do our workshop entitled "**Kids Engineering - Making It Matter**" It will be again sponsored by AIChE and Fluor.

The activities to be covered will be:

1. Learn what Engineers do
2. Polymer Possibilities
3. Label Checks
4. Basic Facts
5. Make an electrical circuit
6. Make a block and tackle
7. Materials, Structures and Bridges
8. Computers in Engineering
9. Learn How Electricity gets to your house
10. Draw a floor plan of your house



These will fulfill requirements for Junior Girl Scout badge, **Making It Matter**; and Webelos Cub Scout activity badge, **Engineering**. We've averaged about 300+ kids for each of the last 3 years and know that everyone has had a great time. Please volunteer to help.

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	ajcrooks06@gmail.com	864-704-8910
Vice-Chair	Rick Vogel	rvogel1@hotmail.com	864-254-6474
Secretary	Jeremiah Batiste	sec@wscaiche.org	423-534-6836
Treasurer	David Laursen	david.laursen@fluor.com	864-281-5981
Historian	Aaron Ross	aaaronr11@gmail.com	404-642-3390
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.			

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.