

# The Packed Column

American Institute of Chemical Engineers - Upper Midwest Section

January 2010

## CHAIR'S CORNER

by Nathan Johnson

As this year winds to a close and 2010 looms closer, our local section is continuing to move boldly forward. In this newsletter, we are excited to announce that the AIChE National meeting will be coming to the Twin Cities! The meeting will be here in Fall 2011 (just under two years from now), October 16-21, at the Minneapolis Convention Center. Save the dates! Alon McCormick (University of Minnesota) will be meeting program chair, and Jim Hill (Iowa State) will be co-chair. Let Alon know ([mccormic@cems.umn.edu](mailto:mccormic@cems.umn.edu)) if you're interested in participating in local arrangements or other aspects of the meeting. Alon will bring updates to the local section meetings in the coming year.

We are also planning our usual schedule of exciting events for the winter and spring. In January, we will be touring the Howard R. Green Company offices, as well as hearing a presentation on "Job Searching" and "Job Keeping" by Jeff Holcomb.

Our February meeting will be our annual joint meeting with the student section at the University of Minnesota. It is always enjoyable for us professionals to meet with the next generation of chemical engineers, the

engineering leaders of the future. This year our speaker will be Joe Shuster, author of *Beyond Fossil Fools*. After the weather forced us to cancel our December meeting, Joe kindly offered to host our joint meeting. After the cancellation, I am more anxious to hear Joe than ever!

Of course, we also have the MinnTS meeting in March, and our annual Symposium in April. This will be our fiftieth symposium, and we are counting on our new Symposium Chair, Jason Kurdziel, to make it an exciting one!

Speaking of new officers, we are excited to welcome Jeff Allen, our new Membership Secretary and newsletter editor to the board. After editing the newsletter for many years, I am happy to hand the task off to new talent. Welcome aboard, Jeff! We look forward to benefitting from your efforts.

Finally, as usual, we are always happy to welcome new volunteers. Whether it is to represent your company on the board, or to fill one of our open positions, or to help out in planning the National Meeting, your help is much appreciated. It takes the effort of all of us to make sure that our local section continues to move boldly into the future!

Chair	Nathan Johnson	Pace Analytical	<a href="mailto:doc_curtis@rocketmail.com">doc_curtis@rocketmail.com</a>	651-737-0144
Vice Chair	Christine Kurtz	H.R. Green	<a href="mailto:ckurtz@hrgreen.com">ckurtz@hrgreen.com</a>	651-659-7716
Past Chair	Elizabeth Willkom	3M	<a href="mailto:eegwillkom@mmm.com">eegwillkom@mmm.com</a>	651-778-4237
Symposium Chair	Jason Kurdziel	OSI Soft, Inc.	<a href="mailto:jkurdziel@osisoft.com">jkurdziel@osisoft.com</a>	651-894-4230
Recording Secretary	Justus Hendrickson	Fluor Global Services	<a href="mailto:justus.hendrickson@fhr.com">justus.hendrickson@fhr.com</a>	651-438-7282
Membership Secretary	Jeff Allen	Brown and Caldwell	<a href="mailto:jallen@brwncald.com">jallen@brwncald.com</a>	651-468-2061
Treasurer	Cameron McDaniel	Fluor Global Services	<a href="mailto:Cameron.McDaniel@fhr.com">Cameron.McDaniel@fhr.com</a>	
Webmaster	Ryan Birkenholz	Golder Associates Inc.	<a href="mailto:rbirkenholz@golder.com">rbirkenholz@golder.com</a>	612-810-0124
U. M. Chapter Liaison	Prof. Raul Caretta	University of Minnesota	<a href="mailto:caretta@umn.edu">caretta@umn.edu</a>	612-625-8066
General Mills Chair	Thomas Kempf	General Mills Corporation	<a href="mailto:thomas.kempf@genmills.com">thomas.kempf@genmills.com</a>	763-764-2873
Young Professionals Chair	Steven Head	Ulteig Engineers	<a href="mailto:steve.head@ulteig.com">steve.head@ulteig.com</a>	763-259-7827
Scholarship Chair	OPEN			
Publicity Chair	OPEN			
Your Company Chair	OPEN			

<http://www.aichelocal.org/tc>

## JANUARY MEETING

### “Job-Searching” and “Job-Keeping” presentation by Jeff Holcomb, President of GRN of the Twin Cities

**When:**

Wednesday, January 27

5:30-6:00pm Tour of Howard R. Green Company offices, Suite 400N – Take North Tower elevators to 4<sup>th</sup> floor.

Exit elevators and enter doors into Howard R. Green lobby

6:00-7:00pm Presentation, Conference Room 150S, 1<sup>st</sup> floor

7:00-7:30pm Networking

**Where:**

Court International Building

2550 University Ave W

St. Paul, MN 55114

**RSVP:** Please [RSVP](#) to Christine Kurtz at [ckurtz0887@gmail.com](mailto:ckurtz0887@gmail.com) by Monday, January 25<sup>th</sup>.

**Presentation Overview**

Jeff will provide insights into the job market and into the “job of finding a job” in this marketplace. He brings a unique perspective into this effort as a hiring manager in the engineering field and now as a recruiter in the engineering field. Relationships are the key in today’s economy and this will be a key topic of the presentation.

**Jeff Holcomb-Bio**

Jeff Holcomb, President of GRN of the Twin Cities, is an accomplished executive with extensive experience in the Architecture, Engineering, Environmental and Construction (AEC) industries. He has expertise in operations, business development, sales and marketing of professional services to both the private and public sectors.

Prior to starting GRN of the Twin Cities, Jeff was president of the leading engineering-design-build firm focused on designing and building renewable energy (ethanol and biodiesel) facilities across the United States. Before this, he was senior vice president of business development/marketing at a nationally ranked engineering consulting firm. He has held various other positions in business development and operations in the AEC industry during his 25-year career including starting a successful environmental consulting practice.

Jeff received his B.S. in chemistry from Alma College (Alma, MI); his MS in chemical engineering from Arizona State; and his MBA from The University of St. Thomas (Minneapolis, MN).

**Directions:** The Court International Building is immediately off Hwy 94. From East or West take exit for Hwy 280. However, rather than proceeding on Hwy 280, you will turn off on University Ave. You will see the Court International building to the left. You can also Mapquest directions. There is a free visitor parking lot.

## FEBRUARY MEETING

# AIChE-MN Professional and Student Chapter Meeting

## Energy Foolishness to Energy Independence

Hosted by: AIChE Student Chapter

Date: Wednesday, February 3, 2010

Time: 6:00 PM

Where: Mississippi Room in Coffman Union Building at University of Minnesota

Cost: \$10/person

RSVP: [ckurtz0887@gmail.com](mailto:ckurtz0887@gmail.com) by Friday, January 29

*Dinner will be provided by a caterer and is included in the \$10 charge.*

### Abstract:

Join Joe Shuster, author of *Beyond Fossil Fools*, for a relevant and revealing talk on the most important issue of our time: energy. Shuster, a Minnesota businessman from New Prague, will lead you on an energy road trip to U.S. energy independence in one generation. He will outline how we must urgently map a new energy direction to avert the energy disasters that loom on the horizon. His clear and quantified presentation defines the problem, explores the possibilities and then shows the roadmap to a solution, complete with costs and a timeline for implementation.

### Speaker Biography:

Joe Shuster is a chemical engineer, graduating from the University of Minnesota in 1954, and is a true entrepreneur. He founded or co-founded eight companies and has served on the Board of Directors of over 20 businesses, organizations and international firms. Joe has testified before Congress, lectured often and widely, and received numerous professional and civic awards. He also accurately predicted the oil embargo of 1973 in an energy alert paper he wrote for the U.S. Congress.

In 1962, Joe co-founded Minnesota Valley Engineering (MVE), which is the world's leading manufacturer of high technology cryogenic equipment used in industry, agriculture, transportation and medicine. MVE was, and still is, headquartered in New Prague, MN. Shuster also founded Teltech, a science and engineering consulting firm, which produced hundreds of technical reports, including reports on photovoltaic manufacturing, fuel cells, natural gas purifications and other energy related topics. His greatest contribution to our society, however, occurred with the publication of his book *Beyond Fossil Fools - The Roadmap to Energy Independence by 2040*. For the past 35 years, Joe Shuster has been sounding the alarm about our unhealthy reliance on fossil fuels and the energy foolishness inherent in our use of such fuels. We are most fortunate to have an individual like Joe who is more interested in our children's future on this planet than the selfish pursuit of comfort for only his generation.

[See the next page for directions to Coffman Memorial Union]

## Coffman Directions:

Coffman Memorial Union  
300 Washington Ave. S.E.  
Minneapolis, MN 55455-0110

### From 35W

**From the south:** After passing I-94, watch for signs directing you to the U of M/3rd Street exit. Follow the East Bank sign. Merge onto Washington Avenue. Once you cross the Mississippi River, Coffman will be the second building on the right. Turn right onto Church Street and then right onto Delaware Street. Coffman's south entrance and drop-off locations will be on the right. Entrance into East River Road Garage is on the left.

**From the north:** Take the University Avenue/4th Street exit. Turn left at University Avenue and head toward the East Bank. Turn right onto Oak Street, then right onto Washington Avenue. Coffman is five blocks ahead on the left. To park or drop-off, turn left onto Church Street and right onto Delaware Street. The south entrance will be on the right.

### From I-94

**From the east and west:** Take the Huron Boulevard exit from I-94 (north exit only). Turn left onto Washington Avenue. Coffman is approximately seven blocks ahead on the left. Turn left onto Church Street and right onto Delaware Street. Coffman's south entrance and drop-off locations will be on the right. Entrance into East River Road Garage is on the left.



## **ANNOUNCING TWO SHORT COURSES OFFERED DIRECT TO YOU AND YOUR ASSOCIATES BY THE UPPER MIDWEST AIChE**

Registration is limited on a first come basis, no exceptions.

### **Principles of Process Engineering**

Feb 8<sup>th</sup> and 9<sup>th</sup> 2010

Everyone working in product or process development encounters process engineering problems whether they recognize it or not. This is the stuff that many new Chem E.s say they never saw in school! The 2 day workshop is designed to provide basic and useful process engineering principles for technicians, scientists and engineers at all levels of development. The concepts are presented in a way that minimizes the use of complex engineering formulas and emphasizes practical problem solving in a user friendly manner without sacrificing understanding. This approach has proven successful in building confidence and experience in a hands-on workshop format. The subjects include material and energy balances, fluid flow and viscosity, heat transfer in process equipment and thermal properties of biomaterials.

### **Instructors**

Course instructors are Dr. Ken Valentas and Dr. Leon Levine. Levine is a well known consultant to the consumer products industry with extensive experience at both P&G and Pillsbury. Valentas is the past Director of the BioTechnology Institute at the University of Minnesota and also has had over 27 years experience at Pillsbury, General Mills and Sinclair Oil. They have co-authored a book entitled, "Food Processing Operations and Scale-up". Valentas is co-editor of the "Handbook of Food Engineering Practice".

### **Cost:\*\*\***

Early Bird (before Jan 22<sup>nd</sup> ) Member Price: \$995.00

Early Bird Non-Member Price: \$1,095.00

Early Bird Discount Ends: 10/2/2009

AIChE Member Price: \$1,095.00

Non-Member Price: \$1,195.00

Cancellation fees apply after 10/2/2009

**\*\*\* This is the lowest cost offered by National AIChE for a two day course without the expense of travel and the time away from home.**

### **To reserve a spot or if you have questions:**

Contact Tom Kempf:

thomas.kempf@genmills.com

763-764-2873

[Continued on next page]

## Principles of Process Scale Up

Feb 11<sup>th</sup> and 12<sup>th</sup> 2010

Scale up of a process can be the ultimate determinate of success or failure in the commercialization of a new product/process. Unfortunately, the successful attainment of this task is not trivial and often ends in complete or partial failure. The goal of this course is to teach product/process development and design engineers the approach that can be used to minimize failure and maximize success.

The first day of the course will introduce the general concepts related to successful product/process scale up and illustrate a technique for scale up of poorly understood unit operations, the types of experimentation required, and some consequences and reasons for poor scale ups.

The second day of the course will cover the use and applicability of dimensional analysis for analyzing and solving scale up problems that are well understood and the design engineering aspects of scale up.

The course will be taught through the extensive examples from the lecturer's experience and the class's participation in class exercises.

### Instructors

The course instructor is Dr. Leon Levine. Levine is a well known consultant to the consumer products industry with extensive experience at both P&G and Pillsbury. He has co-authored a book entitled, "Food Processing Operations and Scale-up" as well as numerous journal articles.

### Cost:\*\*\*

Early Bird (before Jan 22<sup>nd</sup>) Member Price: \$995.00

Early Bird Non-Member Price: \$1,095.00

Early Bird Discount Ends: 10/2/2009

AICHe Member Price: \$1,095.00

Non-Member Price: \$1,195.00

Cancellation fees apply after 10/2/2009

\*\*\* This is the lowest cost offered by National AICHe for a two day course without the expense of travel and the time away from home.

### To reserve a spot or if you have questions:

Contact Tom Kempf:

thomas.kempf@genmills.com

763-764-2873



## AIChE Upper Midwest Annual Symposium

### Theme for 2010: Energy Management

Friday, April 23<sup>rd</sup>, 2010  
Time: 8:30 AM – 5 PM  
(lunch and social hour provided)

Ramada Mall of America Hotel  
2300 East American Boulevard  
Bloomington, Minnesota 55425-1228  
[www.RamadaMOA.com](http://www.RamadaMOA.com)

The symposium is a collection of talks based around the theme, each talk being approximately 30-45 minutes in length. We typically have a well known keynote speaker to kick off the event. Time will be set aside at the end of the symposium for networking with your peers.

As in previous years, undergraduate students are encouraged to submit posters describing their projects with cash prizes for the top winners.

If you would like to give a presentation of your work at the symposium please send a brief abstract to:

Jason Kurdziel  
Email: [jkurdziel@osisoft.com](mailto:jkurdziel@osisoft.com)  
Phone: 651-894-4230  
Mail: 1800 Graham Ave. #323  
Saint Paul, MN 551116

We are also looking for volunteers and corporate sponsors for the event.  
The more involvement from the Chem E. community the better the final product will be.

PDH Credits available.

Jason Kurdziel, local section Symposium Co-Chair

Join AIChE Upper Midwest on Facebook. Go to the groups application and search for "AIChE Upper Midwest" and click the join group link. This is a great place to get meeting information and connect with other members.



**American Institute of Chemical Engineers  
Upper Midwest Section  
c/o Nathan C. Johnson  
8500 177<sup>th</sup> Lane  
Forest Lake, MN 55025**