

# The Packed Column

American Institute of Chemical Engineers - Upper Midwest Section

November 2005

## CHAIR'S CORNER

by Mark Arlinghaus

### **It is Never Time to Forget About Safety**

As the 21st. anniversary of the tragedy in Bhopal, Indian draws near, I have been reflecting on the responsibility each of us has on ensure safety in our facilities. Whether we design equipment, operate it, or manage those who do, we can never let safety be someone else's job. The recent explosion of the tanker car of propylene in Texarkana serves as a reminder that failures can be deadly. Even when there is no loss of life, the unfavorable press coverage can be difficult for companies to manage. In this case, the explosion was caused by a train derailment, not by an error of the propylene's end user, but this explosion and the resulting evacuation should spur us to question what we are doing to ensure that our facilities are safe. Even if you don't use bulk chemicals and reaction chemistry is not your company's main focus, the potential for large scale accidents is ever present. Ammonia based refrigeration systems, steam utilities, and natural

gas supplies are ubiquitous.

There is good news. Industry fatalities have dropped 60% since 1992 and these incidents have been contained within plant boundaries. One reason for the drop in incidents and deaths has been AIChE's active roll in improving process safety. After Bhopal AIChE started the Center for Chemical Process Safety. This industrial alliance works to spread information about safer process design and best practices for plant operations. Members of the CCPS have access to databases of industrial accidents and a database of process equipment reliability. This information helps avoid the mistakes of the past. Other services are free of charge. The CCPS web site can put you in contact with consultants in specific areas of safety such as bulk solids handling, incident investigations, and reactive materials hazards. CCPS is also the leading publisher of books on process safety. There are over 75 titles in the CCPS library. The titles are also up to date. If your business needs help accessing risks from terrorism or natural disaster, CCPS has tools for you. You can find out more at

<http://www.aiche.org/ccps/>

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## NOVEMBER MEETING

### Renewable Resources for Life<sup>®</sup>

**Dr. Doug Van Thorre, President & Chief Technical Officer, Biorefining, Inc.**

**Thursday, November 17, 2005**

**5:30 p.m. – 7:30 p.m.**

**Meeting Location:  
The Old Spaghetti Factory  
233 Park Avenue  
Minneapolis, MN 55415**

#### **Abstract:**

Biorefining, Inc. was incorporated in January of 2000 with the vision to develop, commercialize and license proprietary technologies capable of economically converting plant material into value-added products. The Company currently maintains three technologies secured under its issued or pending patents: the Bio-Extraction Process, the Biomilling Process, and the Bio-Conversion Process. These technologies maximize the number and value of co-products extracted from a single raw material and are expected to provide processing improvements leading to enhanced profitability. Biorefining's technologies are capable of producing products ranging from gross-fractionations, commonly used as feed and food grade commodity products, all the way down to the finest extractions of specialty sugars and other valuable components for use in applications such as leading-edge drug development, dietary supplements, and nutritionally enhanced foods. In addition to the technologies developed by Biorefining, discussion will touch on the road traveled from January of 2000 and the role played by engineers.

#### **Reservations**

Reserve a spot by sending an e-mail to [kurt.waananen@genmills.com](mailto:kurt.waananen@genmills.com) by November 11th (include name and company/affiliation).

#### **Cost**

\$12 for members, \$24 for non-members

#### **Agenda**

5:30 p.m. – 6:00 p.m. Social

6:00 p.m. – 6:45 p.m. Dinner

6:45 p.m. – 7:30 p.m. Presentation

#### **Link to Directions**

<http://www.mapquest.com/maps/map.adp?address=233%20Park%20Ave&city=Minneapolis&state=MN&zipcode=55415%2d1112&country=US&title=233%20Park%20Ave%20Minneapolis%2c%20MN%2055415%2d1112%2c%20US&cid=lfmaplink2>

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**Nathan Johnson, [doc\\_curtis@rocketmail.com](mailto:doc_curtis@rocketmail.com)  
651-733-2184**

## **DECEMBER MEETING**

Dept. of Commerce, Weights and Measures Division

**Tour Host and Speaker: Carol Hockert, Division Director**

**Wednesday, December 14, 2005**

**5:00 p.m. – 6:15 p.m.**

**Meeting Location:  
Weights and Measures  
2277 Highway 36 West (Frontage Road)  
Suite 150  
Roseville, MN 55113**

### **Tour and Lecture Description**

On this tour you will have the opportunity to visit the metrology and petroleum laboratories for the state's Weights and Measures Division. The metrology laboratory makes precision mass measurements for companies all over the U.S. and also makes solid density (volume) determinations for precision mass standards. The petroleum laboratory performs testing on petroleum samples for determination of compliance with ASTM specifications and state law. After the tour, you will hear about the Weights and Measures Division and how their work affects commerce all over Minnesota.

### **Reservations**

Reserve a tour spot by sending an e-mail to [kurt.waananen@genmills.com](mailto:kurt.waananen@genmills.com) by December 7 (include name and company/affiliation).

**Tour will be limited to the first 25 reservations.**

### **Cost**

The tour is free for local section members, \$12 for non-member guests

### **Agenda**

5:00 p.m. – 6:15p.m. Tour and lecture

6:15 – Optional dinner at nearby restaurant

### **Link to Directions**

<http://www.mapquest.com/maps/map.adp?address=2277%20Highway%2036%20W&city=Roseville&state=MN&zipcode=55113%2d3804&country=US&title=2277%20Highway%2036%20W%20Roseville%2c%20MN%2055113%2d3804%2c%20US&cid=lfmaplink2>

**SHORT COURSE ANNOUNCEMENT**

by Tom Kempf

We recently brought a National AIChE short course to the Twin Cities. The course, Essentials of Chemical Engineering for Non-Engineers, was very well received. National supplied us with a number of extra books and CDs of the course materials. Rather than send this back for partial credit, we are offering the materials locally for

a much reduced price. The course is Nationally offered for \$1395 for members and \$1545 for non-members. We are able to offer a limited quantity of the book/CD combination for \$500 for members and \$750 for non-members. The CD alone sells for \$1000 from National.

If interested, contact Tom Kempf by email at: [thomas.kempf@genmills.com](mailto:thomas.kempf@genmills.com). Hurry, supplies are limited.



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