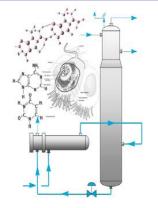
AIChE Chicago Section

September Newsletter

Chicago Section

www.aiche-chicago.org

September 2010



Inside this issue:

Chair's Corner	2
What AIChE Means to Me: J. Peter Clark	4
September Meeting	6
Thiele Award Winner	7
2010 AIChE Midwest Regional Meeting	10
AIChE National: Election News	16
Upcoming Meetings	22

AIChE National Election

All ballots must be received by **September 7**.

You can cast your electronic proxy by clicking at the link below;

www.cssconsult.com/elections/AIChE2011

Program" at LDC meeting.

AIChE Chicago Section won the 2010 best "Outreach

AIChE Chicago September 2010 Meeting Notice

BACT to the Future BACT for Green House Gases (GHGs) Coming to A Refinery Near You Next January

Mark W. Lockhart

"Technology Director for Refining for URS Corporation"

Date: Wednesday, September 15th, 2010

Location: Emmet's Brewing Co.

5200 Main St. Downers Grove, IL 60515, (630) 434-8500

Cost: Members: \$35 Non-Members: \$40

Students: \$5 Unemployed/Retired Members: \$20

To Register CLICK the Link

http://guest.cvent.com/d/8dqvrp/1Q

Agenda

5:30 PM	BEER Tasting & Brewery Tour
5:30 PM	Registration & Social Hour
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6:30 PM Buffet Dinner

7:30 PM Announcements & Technical Presentation

Chair's Corner

September will be a very busy and exciting month for the AIChE - Chicago Section.

On September 15 we will have our monthly meeting. This month the topic is on the Economic Impact of Cap and Trade and the talk will be given by Mark Lockhart and James Woolley of URS. Please read about the details of this meeting elsewhere in the newsletter.

We also have our annual Midwest Regional Conference at IIT on *September 30 and October 1* - Building the Future of Chemical Engineering. This two day Symposium will focus on Energy and Sustainability.

The keynote addresses will be given by *Bill Hoback* of the Office of Coal development in Springfield Illinois and *Maria Burka*, president -elect of AIChE national, program director Process and Reaction Engineering in the Chemical, Bioengineering, Environmental, and Transport Systems Division of the National science Foundation.

There will also be a poster session on chemical engineering research and development topics.

We will continue our K-12 outreach program inviting 400 students to listen to *Dr. Al Sacco*, Professor of Chemical Engineering at Northeastern University in Boston and NASA Astronaut.

The young professionals will also have workshops as well as a social comedy event. Please read about the details elsewhere in the newsletter.

Meetings are a great way of sharing technical information as well as networking. Volunteering is another way to meet fellow engineers and network with them. Some opportunities for volunteering are: K-12 Outreach program, UIC Senior Design class lecture, and Engineers Without Borders.

The K-12 Outreach program involves getting students interested in Chemical Engineering by arranging various activities such as the program in the Midwest Regional Conference. For more information please contact Alan Zagoria.



The UIC Senior Design Class has guest lecturers for various relevant topics in Chemical process design. Please contact Jeffery Perl if you are interested. For the more adventurous among you please consider an opportunity with Engineers Without Borders. For more information please contact Alan Zagoria or Dennis O'Brien. September 7 is the last day that you can vote in the AIChE National Election. This year there is at least one candidate from the Chicago area and so I urge you to find out more about all the candidates and go online to vote.

For those of you who may not be aware, our long term Webmaster Heather Mayes has passed the baton to Janet Chu. I want to thank Heather on her great work in putting the website together. Communication is the lifeblood of any organization and Heather's contribution as webmaster has kept the body of our organization going strong. I also want to thank Janet for taking on this task and wish her great success in maintaining and improving our website.

We wish Heather Mayes much success as she starts her PhD studies at Northwestern University this month, her colleagues at Jacobs Consultancy will miss her deeply.

I also want to congratulate J. Peter Clark on being the recipient of the coveted Thiele Award which will be presented to him at the September monthly meeting. This award, sponsored by BP is given for lifelong achievement in the Chemical Engineering Profession. Please see the article written by him on what AIChE Means to Me elsewhere in the newsletter.

Chair's Corner - continue

All of these activities could not be accomplished without the support of the membership.

September is the beginning of the membership renewal season.

The local membership dues have been kept at \$20 for 2010-2011. This can be paid with your national renewal membership or at any local section meeting.

I hope to see you at one or both of our meetings this month.

Steve Rosenblum Section Chair—UOP

Thanks to September Meeting Sponsor

Special Thanks to URS Corporation for supporting the students of AIChE Chicago! URS has pledged up to \$500 to offset student attendance costs to the chapter. This support allows AIChE to continue low-cost admission to students, and to strengthen our support of student activities during the year.



AIChE National Election - Your Vote Does Matter!

Historically, AIChE National elections have been won by very small margins because few people vote. The National AIChE election is underway. All ballots must be received by September 7th. You can vote by proxy on-line until September 7th. As hard copy ballots must be *received* by September 7th, it is doubtful that you have time to vote by hard copy. The Tellers Committee will meet September 13^{th.} Shortly after the Tellers Committee meeting, candidates will be notified of the results. Results will be officially announced November 8, 2010 at the AIChE Annual Business Meeting in Salt Lake City, Utah.

Profiles of the candidates can be found in this newsletter (Pages 16-21) and also are on the National AIChE web site at http://www.aiche.org/About/WhoWeAre/Leadership/Candidates/ElectionCandidates.aspx.

If you have not already done so, read the profiles and vote now by proxy at www.cssconsult.com/elections/AIChE2011. Your member ID number is required. Your vote does matter!

All ballots must be received by September 7

What AIChE Means to Me

AIChE has Meant Giving and Receiving J. Peter Clark

Long before networking was a popular concept and motivation, I learned its value in the Northern California Section of the Ameriof Chemical can Institute Engineers (AIChE). As a freshly minted PhD from Berkeley, working at the Western Regional Research Center of the U. S. Agricultural Research Service. I started going to monthly meetings of the section at Spenger's, a popular seafood restaurant near Berkeley's waterfront. After about two meetings, one of my former professors, Alan Foss, about to become chair of the section, asked me to be responsible for our monthly newsletter, and I agreed.

I date myself when I point out that assembling a four page newsletter literally involved cutting and pasting typewritten copy onto a master for photo offset reproduction and mailing to the members. No computers, no word processing, no emails, no web sites. More to the point, it also involved me writing a report on each month's program and a preview of the next. That motivated me to attend regularly, of course, and so I got to know other active members from Chevron, Shell Development, Bechtel, Raychem, and to maintain my friendships at the University. Just before I was promoted and transferred by the Department of Agriculture to Washington. DC. I was asked to join the Executive Committee, which would have resulted eventually in a leadership role for the section before I was thirty.

Writing the newsletter helped me develop my communication skills while it made me widely known in the local professional circles. Readers made gratifying comments on my articles, making me feel the monthly effort was worthwhile. We interrupted a planning session to watch Neil Armstrong step on the moon. After a year in Washington, while my heavy travel made involvement in the local section challenging, I joined the faculty of chemical engineering at Virginia Tech, in Blacksburg, a beautifully situated town on the edge of the Appalachians in southwest Virginia. The Central Virginia Section of AIChE consists mostly of the faculty and students of Virginia Tech and of the University of Virginia, which are 3 - 4 hours drive apart, so meetings involve some inconvenience for

some people. We often met in between to share the pain, but there really is not much along the Shenandoah Valley. I became chair of



the section a year or so before I left to join Continental Baking Company. The section brought the two faculties together, who otherwise were athletic and scholarly rivals, along with a smattering of industry members from DuPont, Westvaco, Merck, and Celanese.

At Continental Baking Company in Rye, NY, I was a member of the Tappan Zee Section. which included people from General Foods, Pepsi, and Union Carbide, but not many academics. During this time, I became chair of the Food, Pharmaceutical and Bioengineering Division, which got me involved in the national programming scene. As those who have done it know, getting involved in any national activity greatly broadens your range of contacts and connections within the profession. I also started teaching, with Ken Valentas of Pillsbury, a short course for AIChE on Food Engineering, which eventually became a book published by Marcel Dekker. This had been suggested by a colleague at Virginia Tech who was on the education committee. I succeeded in nominating my supervisor as Fellow, a favor he returned a few years later.

J. Peter Clark

Shortly before Continental was sold to Ralston Purina, I was persuaded to become President of Epstein Process Engineering, Inc. in Chicago, a small subsidiary of A. Epstein and Sons International, Inc. Epstein is an architecture and engineering firm which then had a substantial clientèle in the food industry. They are better known today for substantial public projects such as the United Airlines terminal at O'Hare, the Harold Washington library. McCormick Place expansions. and Cook County jail. In my time, we designed and built an award winning ice cream plant, two large breakfast cereal plants and a new pet food plant and several expansions. I am proud that quite a few active and valued members of the Chicago section were my colleagues there, and later for a short time at Fluor Daniel.

Not long after I moved to Chicago, and before anyone in the local section really knew me. I was asked to be program chair of the annual meeting. This was still before computers were widely available and while AIChE was publishing a program book with fifty word abstracts for every meeting. My wife, a young volunteer and I edited nearly 1000 mostly poorly written abstracts. We did not have the heart to arbitrarily cut them off at fifty words, as we had been instructed to do. We also alphabetized the authors on our dinner table using tiny slips of paper. From that experience, we learned of some of the abuses that probably still occur at meetings, such as submitting the same paper more than once and submitting too many papers in one meeting. The meeting was successful, I felt. One coup was having the then president of Amoco give a key note speech. His office occupied about half of a high floor of the headquarters building.

I declined an invitation to run for Director, which pretty much ended my active involvement with the national level of the Institute. I did help to found the Research Institute in Food Engineering, which raised funds to

support a few programs in universities, but folded after a few years for lack of continuing support.

In 1998, the Food, Pharmaceutical and Bioengineering Division gave me its award, sponsored by Merck. I was unable to receive it in person at the Miami meeting because I was testifying in a legal case in federal court. I taped a short talk of acceptance, but really regretted not being there. The few other winners from the food industry are among my heroes, including my major professor and my first supervisor.

I've tried to attend local section meetings and participate as I can. Coming full circle to my first involvement in a local AIChE section, I was asked to contribute some articles to the local newsletter and did so until the newsletter became digital. I enjoyed writing them and was told more than once that people enjoyed reading them. I've spoken to the section and to student chapters over the years, including at Notre Dame, Illinois, UIC and IIT. I've helped with some of the symposia that the Chicago section has so creatively initiated through the efforts of Jeff Perl, Shannon Brown, Pat Shannon and so many others.

By far, the culmination of my years in AIChE is to receive the Ernest Thiele Award from the Chicago Section, sponsored by BP. The list of previous winners, starting with Thiele himself, includes some of the most distinguished chemical engineers in the country, not just in our area. It is humbling to be included, especially as one not best known for academic research. I would like to think that I represent the scores of professionals who practice our skills in the trenches of refineries, cubicals, and food plants, trying to lead our younger colleagues, moving the profession forward, and, by the way, improving the health and welfare of society.

The lesson I have learned is always to think of how you can give benefit to the other person, the profession and the world. When you do, you will be rewarded and satisfied in ways you cannot imagine.

September 2010 Meeting Information

BACT to the Future...BACT for GHGs - Coming to A Refinery Near You Next January

What types of BACT ("Best Available Control Technology") controls are currently available for GHG emissions? Not many – at least not yet. Why? Technologies to efficiently capture and sequester Green House Gas (GHG) emissions from process sources (fuel - fired sources (combustion devices?), reformers, cat crackers, etc.) simply do not exist at this time and are likely a decade away from commercial deployment. In short, little if any technology is AVAIL-ABLE (the "A" in BACT). There are currently no CO2-capture technologies – like scrubbers or oxidizers – that can be slapped onto a process emission source for BACT purposes at a reasonable cost.

Unless preempted by congressional legislation, USEPA's issuance of their interpretative ruling on March 29th, 2010 indicates major source permits not finalized by January 2, 2011 must address BACT for GHGs if they emit "significant" GHGs. What is a facility to do?

Speaker's Bio

Mark W. Lockhart, P.E is Technology Director for Refining for URS Corporation and has over 31 years of experience in the refining and petrochemical industry. Mr. Lockhart has extensive experience in process engineering including plant opera-



tions, process engineering design, process development and working in the process licensing industry. He has managed numerous projects that have included efficiency improvements, pinch technology evaluations, process optimizations, NOx reductions and various fired heater technology applications.

Mr. Lockhart is a graduate of the Colorado School of Mines with a degree in Chemical and Petroleum Refining Engineering.

Background

EPA is actively working on guidance for how to establish BACT for greenhouse gases. In October 2009, a Climate Change workgroup was formed by USEPA to identify the major issues and potential barriers to implementing the PSD (Prevention of Significant Deterioration) program under the Clean Air Act for greenhouse gases. The workgroup's primary focus was on identifying BACT requirements and identifying and recommending guidance that would be useful for EPA to provide to permitting agencies regarding the consideration of the energy, economic, and environmental impacts of potential control options for greenhouse gases in the context of a BACT analysis.

The workgroup presented their recommendations to the CAAAC at the CAAAC's February 3, 2010, meeting at which time the CAAAC unanimously voted to pass the recommendations on to EPA.

The work group did not make specific determinations of what technologies would qualify as BACT for sources subject to the PSD program. However, the work group did recommend that EPA expand its online BACT database to include GHG control technologies, and made suggestions to EPA and state regulators on factors to be considered in making BACT decisions.

Still, the workgroup's recommendations were scant and many were unrealistic. Again, what is a facility to do?

DR. J. PETER CLARK WINS THE 2010 ERNEST W. THIELE AWARD

Congratulations to *Dr. J. Peter Clark*, Consultant to the Food and Beverage Industry for being awarded the 2010 Ernest W. Thiele award!

This prestigious award will be presented to Dr. Clark at the September 15, 2010 meeting of the Chicago AlChE section at the Emmet's Brewing Co. meeting location.

Dr. Clark is recognized for leading the development of numerous food products and new food preparation processes. He is an exemplary mentor and teacher for the chemical engineering profession.



He has had an outstanding record of accomplishments with over forty years of experience as an engineering executive in the food and related industries. Dr. Clark is an expert in sanitary design, food safety, and technology assessment, due diligence economic evaluation, process development and engineering leadership. Peter has authored or co-authored over forty papers, six books and one patent.

Dr. Clark received his B.S. Ch.E. at the Notre Dame and his PhD at UC Berkeley.

The Ernest W. Thiele award is presented annually to a Midwest region member of AIChE who has made outstanding contributions to advance the practice of Chemical Engineering. The award is sponsored by BP, and consists of a plaque and a \$1000 honorarium. Please join us in congratulating J. Peter Clark on his achievement.

AIChE courses in Chicago

To register click: http://catalog.asme.org/home.cfm?Category=ED

CH090	Industrial Fluid Mixing	Oct 11-12
CH024	Chemical and Bioengineering for Technical and Scientific Professionals	Oct 11-12
PD513	TRIZ The Theory of Inventive Problem Solving	Oct 11-13
CH501	PSM: Requirements and the Development of Management Systems	Oct 11-13
CH034	Combustible Dust Hazards: Dust Explosions	Oct 14-15
CH500	Fundamentals of Process Safety	Oct 14-15
CH004	Distillation in Practice	Oct 13-15
CH761	Producing Quality Powder Products	Oct 14-15
CH034 CH500 CH004	Systems Combustible Dust Hazards: Dust Explosions Fundamentals of Process Safety Distillation in Practice	Oct 14-15 Oct 14-15 Oct 13-15

Ernest W. Thiele Award Recipients

<u>YEAR</u>	<u>RECIPIENT</u>	<u>AFFILIATION</u>	RECOGNITION & ACHIEVEMENT
1983	E.W. Thiele	Standard Oil (Indiana)	Catalysis, Distillation fundamental advances
1985	B.B.Broughton	UOP	Aromatics Separation Processes, adsorptive separation
1986	T.J. Hanratty	Univ. Of Illinois	Advances in Fluid Mechanics
1987	G. Thodos	Northwestern	Physical Property Advances
1988	L.O. Stine	UOP	Petroleum/Petrochemical Processes
1989	D.T. Wasan	IIT	Research and Progress on Separation Processes
1990	R.S. Mah	Northwestern	Chemical Process System Analysis
1992	J.J. Carberry	Notre Dame	Chemical Reaction Engineering research, innovation, and education
1993	RJ. Bertolacini	Amoco	Catalysis research innovations and leader- ship
1994	J.W. Westwater	Univ. Of Illinois	Research in Heat transfer and contributions in teaching
1995	Norman Li	UOP	Pioneering research in membranes and separations
1996	Rathin Datta	Argonne	Original research in metabolic engineering and membranes
1997	Hamid Arastoo- pour	IIT	Academic leadership and environmental engineering
1998	Arvind Varma	Notre Dame	Fundamental advances in synthesis of materials, catalysis and reactor stability
1999	S. George Bankoff	Northwestern	Heat transfer advances in chemical and nuclear engineering
2000	Henry Linden	IGT	Leadership of the Institute Of Gas Tech
2001	Paul Sechrist	UOP	Contributions to computational fluid Mechanics, CCR, and FCC refining processes
2002	Julio Ottino	Northwestern	Research in Chaos Theory and mixing of solids and liquids
2003	Ali Cinar	IIT	Contributions in process modeling, monitoring and control. As an educator championing computers and statistics.

Ernest W. Thiele Award Recipients

YEAR	RECIPIENT	AFFILIATION	RECOGNITION & ACHIEVEMENT
2004	Ted M. Knowlton	PSRI	For his contributions to fundamental and applied research, and his leadership in the fields of fluidization and particulate solids.
2005	Dimitri Gidaspow	IIT	For his fundamental contributions to computational fluid dynamics, multi-phase flow and fluidized bed systems and as an educator.
2007	Lynn H. Rice	UOP	For his fundamental contributions to the petroleum refining isomerization process.
2008	Robert Lyczkowski	Argonne	For innovative application of multiphase theory and computational fluid dynamics.
2009	Harold Kung	Northwestern	For contributions to understanding catalytic phenomena, design of catalytic structures, and teaching.
2010	J. Peter Clark	Consultant	For leading the development of numerous food products and new food preparation processes, and as a mentor and teacher.

NOMINATIONS REQUESTED FOR THE ERNEST W. THIELE AWARD

The Ernest W. Thiele award is sponsored by BP and recognizes the outstanding contributions to our profession by a Midwest region chemical engineer. This award was established by the AIChE Chicago Section and is presented annually to a Midwest region AIChE member. This internationally recognized award consists of an engraved plaque and \$1000 honorarium presented at our sectional meeting.

Nomination forms and additional information can be obtained from the Thiele Committee Chair. Completed nominations are due to the committee chair no later than <u>March 1</u>, <u>2011.</u>

One of the highest honors a distinguished chemical engineer can receive is our Chicago Section Thiele award. Please consider nominating a deserving engineer for this prestigious award.

Jim Simnick

BP Amoco Complex, J-8 150 W. Warrenville Road, Naperville, IL 60566 Ph 630-420-5936, fax 630-420-4832 email: james.simnick@bp.com

This Fall Something Outstanding Is Going on in



Chicago

The AIChE
Midwest Regional
Conference

September 30 to October 1
at
Illinois Institute
of Technology

BE PART OF IT

- Hear presentations on new technology
- Learn about Energy Generation
- Introduce High School Students to Chemical Engineering
- · Learn about Pharmaceuticals
- Meet with University Students
- Exchange Ideas
- Make new friends

Learn more and Register at: http://www.aiche.org/Conferences/2010chicagoconference.aspx



Also see Millennium Park in Chicago



Registration Form - 2010 AIChE Midwest Regional Conference

Online Registration is also available at

http://guest.cvent.com/EVENTS/Info/Summary.aspx?e=4d2f677d-e0b8-4cb8-8144-9b18802194f6

September 30 - October 1, 2010 at Illinois Institute of Technology, Chicago, IL

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Highlighting Three Sessions of the AIChE Midwest Regional Conference

at Illinois Institute of Technology

Sustainable Energy Systems

9:30 am, Thursday, September 30, 2010



Integrated Renewable Systems for a Green Economy 3:00 pm, Thursday, September 30, 2010







Energy and the Environment 9:30 am, Friday, October 1





Sustainable Energy Systems

Thursday, September 30, 2010: 9:30 AM Alumni Lounge (Illinois Institute of Technology)

Chair:	Urmila Diwekar	Email: urmila@vri-custom.org
9:30 AM	Optimal Control of Biodiesel Production In a Batch Reac-	Pahola T. Benavides and Urmila Di-
9:55 AM	Renewable Sources In Flexible Fuel Energy Conversion	Jeffrey Kantor and Patrick Mousaw
10:20 AM	A System-Level Approach to Advanced Transportation	Mark Petri
10:45 AM	Optimal Sensor Placement for IGCC Power Systems	Adrian J. Lee and Urmila Diwekar
11:10 AM	Market Responsive Control: A Second Order Approach to	Benjamin P. Omell and Donald J.







Integrated Renewable Systems for a Green(\$) Economy

Thursday, September 30, 2010: 3:00 PM Alumni Lounge (Illinois Institute of Technology)

Chair: Co-Chair:	Sohail Murad Said Al-Hallaj	Email: murad@uic.edu Email: salhallaj@allcelltech.com
3:00 PM	Clean and Renewable Energy Policy and Program Recommendations	Suzanne Malec-McKenna and Howard Learner
3:25 PM	The Carbon and Energy Footprint of Water Treatment, Distribution and Reclamation and Waterway Manage- ment In Greater Chicago	Pete Mulvaney, Catherine A. O'Con- nor, Antonio Quintanilla, Louis Kol- lias, Manju Sharma and Richard Lanyon
3:50 PM	The Emerald Forest– Algae Production In a Pilot-Scale Photobioreactor	Fouad Teymour
4:15 PM	Heat Recovery at a Water Reclamation Plan In Greater Chicago	Ali K. Oskouie, Catherine A. O'Con- nor, David Lordi, Louis Kollias and Richard Lanyon





Energy and the Environment

Friday, October 1, 2010: 9:30 AM

Armour Dining (Illinois Institute of Technology)

Chair:	Kevin Taylor	Email: k2356@aol.com
9:30 AM	An Efficient Stochastic Optimization Framework for Studying the Impact of Seasonal Variation On the Minimum Water Consumption of Pulverized Coal (PC) Power Plants	Juan M. Salazar and Urmila Di- wekar
9:55 AM	Study of Absorption Based Carbon Capture In a Coal Fired Power Plant	Prakash Kotecha and Urmila Di- wekar
10:20 AM	Characterization and Stochastic Modeling of Uncertainties In the Biodiesel Production	Urmila Diwekar and Sheraz Abbasi
10:45 AM	Potential Impacts of PHEVs on Regional Power Systems	Jianhui Wang and Cong Liu
11:10 AM	An Overview of the Energy-Water Nexus	Leslie Poch



Candidate for President-Elect

Thomas R. Hanley, Auburn University

Tom Hanley is a professor of chemical engineering at Auburn Univ. After earning three degrees at Virginia Tech and a tour at the Air Force Materials Laboratory, he moved to Tulane Univ., where he chaired AIChE's New Orleans Section and served as student chapter advisor. At Rose-Hulman Institute of Technology, he chaired the Terre Haute Section. While department chair at Louisiana Tech and FAMU/FSU, he was General Arrangements Chair (1986 Annual Meeting), Meeting Program Chair (1988 Annual Meeting) and chaired the Tallahassee Section. While dean of engineering at Louisville, he chaired AIChE's Student Chapters Committee, the Management Div., and the AIChE Foundation, and served on the Career and Education Operating Council (CEOC). Initially as provost and



now as professor at Auburn, he was elected to AIChE's Board of Directors and currently chairs the Audit and Webinar Committees and serves on the AIChE Foundation, the International Committee, the Blue Ribbon Committee on Certification and the North American Mixing Forum. He was named Fellow in 1995. He serves on the Board of Directors of Plasticolors, Inc. and the college advisory boards at Michigan Tech and Virginia Tech.

Candidate for President-Elect (by petition)

David A. Rosenthal (by petition), Marsulex Refinery Services

David Rosenthal is a recognized leader improving manufacturing competitiveness through asset reliability across refining, electronics, food, rubber, and chemicals. Dave currently is the Reliability Manager for Marsulex Refinery Services responsible for the mechanical performance of coke cutting and transport assets. Dave's career included consulting and 28 years with Rohm and Haas, with assignments as a Maintenance and Reliability leader, Global Manufacturing Excellence manager, Technical Manager, and Project and Process engineer.

An AIChE Fellow, Rosenthal's service spans 30 years to his current South Texas Local Section membership. Rosenthal served as National Treasurer (2001–2007), guiding AIChE through tough financial times,



and as a Board Director (1994–1997). He advanced topical meeting practices as member and chair of the Executive Board of the National Program Committee (2002) and was a Meeting Program Chair (Spring 1996). He chaired the Management Div. and joined the Chemical Technology Operating Council (CTOC). He also chaired the Delaware Valley Local Section (1989–1990). He received a BS from Drexel Univ. and an MS from the Univ. of Texas.

Candidate for Treasurer

Andre R. Da Costa, Chevron

Andre Da Costa, an Engineering Manager at Chevron, has 24 years of diversified industrial chemical engineering experience across four continents. He is co-inventor on 18 patents, coauthor of over 20 papers, and a reviewer for the *Journal of Membrane Science* and NSF. He has an MSc from the Mendeleev Univ. (Russia) and a Ph.D. from the Univ. of New South Wales (Australia).

Since coming to the U.S. in 1999, Andre served at local and national levels in 20 different AlChE roles, including: Chair, Executive Board of the National Program Committee (2010); Chair, Separations Div. (2007); National Director, 2005–2007; Meeting Program Co-Chair, 2006 Annual Meeting, San Francisco; Vice-Chair General Arrangements, 2003 Annual Meeting, San Francisco; and Chair, Northern California Section, 2002–2003.



Andre was in that first group of AIChE Directors appointed to the Finance Committee in 2005 whose measures resulted in the large growth in net assets AIChE experienced during that period. Based on this experience, Andre believes that implementing innovative revenue generating strategies, supported by improved fiscal stewardship, governance and metrics, will be instrumental in moving forward from declining membership and decreasing net assets.

Liese Dallbauman, PepsiCo

Since June 2008, Liese Dallbauman has been Senior Manager of Water Stewardship for PepsiCo's international food and beverage businesses. She is responsible for water use tracking, global water risk assessment and mitigation, and water footprint strategy development. She also represents PepsiCo in the World Business Council for Sustainable Development, the Beverage Industry Environmental Roundtable, and other organizations. From 2005 to 2008, she was part of an interdisciplinary team focused on reducing energy and water use in PepsiCo's domestic Quaker, Gatorade, and Tropicana plants.



Prior to 2005, Dallbauman worked in development and analysis of environmental separation processes for NASA, Honeywell, and the Gas Technology Institute. Her education includes a BS in chemical engineering from the Univ. of Colorado, Boulder, and MS and PhD degrees in chemical engineering from the Univ. of Notre Dame. Her AlChE activities have included service as director and chair of the Separations Div., as a member of the Chemical Technology Operating Council (CTOC) and Executive Board of the National Program Committee (EBPC). She served as a national director of the Institute from 2006 to 2009. She was elected Fellow of AlChE in 2008.

Candidate for Director

<u>Timothy J. Anderson</u>, University of Florida, Gainesville

Tim Anderson is a Distinguished Professor at the Univ. of Florida and Director of the statewide Florida Energy Systems Consortium. He received his education in chemical engineering from Iowa State (BS) and the Univ. of California, Berkeley (PhD). Tim's academic career has been somewhat unusual in that he has been able to pursue discipline research (electronic materials processing with over 200 publications and 6 patents), education research (over 25 publications), and administration (department chair, dean of research). He is editor of the *Chemical Engineering Education* journal, past consulting editor of *AIChE Journal* and a Fellow of AIChE and the American Society of Engineering Education (ASEE).



Tim has a continuous record of service to AlChE over the past 30 years, serving as founding member and chair of the Chemical Engineering Technology Operating Council (CTOC) and Program Chair for the 1995 Annual Meeting; chairing the Computational Molecular Science and Engineering Forum (ComSEF) formation committee; chairing the Executive Board of the National Program Committee (EBPC); establishing the electronic materials programming area 8e; and chairing the Materials Engineering and Sciences Div.

T. Bond Calloway, Jr., Savannah River National Laboratory

Bond Calloway is the Alternative Energy Re-search Manager at Savannah River National Laboratory. He has served AlChE in roles focused on improving the quality and relevance of technical activities, including: 2009 Annual Meeting Program Vice Chair; Nuclear Engineering Div. Chair/Vice Chair/Director; Chemical Engineering Technology Operating Council member; and Executive Board Programming Committee member. He was recipient of the first AlChE Herb Epstein Award for meritorious contributions to AlChE and the ChE profession. He currently serves as AlChE Foundation Trustee; Research and New Technology Committee Chair; and on the Energy Advisory Board. Bond brings to his AlChE service more than 25 years of industrial experience in R&D, design, construction, and operation of nuclear waste/chemical processes. He



has been an NSF peer reviewer, authored more than 40 papers about energy/environmental research, and led the development of three special energy sections for CEP. He reviews AIChE grant opportunities for AIChE staff. He received his BSChE from Auburn Univ. and is an R&D100 award recipient.

Candidate for Director

Emmanuel A. Dada, ChemProcess Technologies, LLC

An AIChE Fellow, Emmanuel is a member of the Admissions Committee, the Separations Div., and the Process Development Div. He was an active member of the Delaware Valley Local Section before he relocated to Houston in 2009, and now participates actively in South Texas Section meetings. He served as chair of the centennial General Arrangement Committee at the AIChE Annual Meeting in Philadelphia in 2008. He also served as chair of the Minority Affairs Committee (MAC) from 2000–2002, chaired its student scholarship program since 1999, and received the MAC Distinguished Service Award in 2000. He served two terms from 2006 to 2007 as chair of the Societal Impact Operating Council



(SIOC) and as its secretary in 2009. In 2007, as chair of SIOC, he welcomed the idea of partner-ship with Engineers Without Borders (EWB) – USA, a nonprofit humanitarian organization, which eventually led to a memorandum of understanding (MOU) and a rewarding partnership between AIChE and EWB. For many years, Emmanuel represented FMC in AIChE's Center for Sustainable Technology Practices (CSTP), an industry consortium on sustainability issues. He served as a technical advisor representing AIChE on the recently released worldwide ETHICANATM video on The Global Anti-Corruption Education and Training (ACET) initiatives to reduce corruption in the engineering and construction industry.

Karl V. Jacob, The Dow Chemical Co.

Karl Jacob is currently Fellow and Technical Manager for the Solids Processing Discipline within Engineering Sciences at The Dow Chemical Co. He received a BSChE in 1981 from Case Western Reserve Univ. He founded the Solids Processing Discipline at Dow in 1989 in order to meet the needs of the company in particle technology/solids processing, and has been recognized with several Dow awards for his technology contributions. In the early 1990s, he was a cofounder of AIChE's Particle Technology Forum (PTF), in response to an unmet need within the Institute. He received the Gary Leach Award for that work. Karl has served as both board member (1996–2000) and chair (2000–2002) of the PTF — representing the PTF to the larger worldwide solids processing community. He is currently Chair of the Nominating Committee for AIChE's



Institute Awards program recognizing achievements by chemical engineers in industry. He serves as chair of the Univ. of Akron chemical engineering advisory board and routinely lectures on particle technology at several universities.

Candidate for Director

JoAnn Slama Lighty, University of Utah

JoAnn Slama Lighty is Professor and Chair of the Dept. of Chemical Engineering at the Univ. of Utah. She received her BS and PhD degrees in chemical engineering from Utah. JoAnn has received the NSF Presidential Young Investigator Award, the Society for Women Engineers (SWE) Distinguished Engineering Educator Award, and the Univ. of Utah's Distinguished Service to Women and Diversity Awards. In addition to teaching and research, she has served in a variety of administrative positions, including founding Director of the Institute for Combustion and Energy Studies. Her research interests include the formation of fine particles from coal combustion and engines. Professor Lighty has been a member of AIChE for over 25 years. She has served as Secretary and a Director of AIChE senvironmental Div. and was recently elected as an AIChE Fellow.



Freeman E. Self, Bechtel

Freeman is a process engineer with Bechtel, specializing in process safety. He received a BChE from Georgia Tech, MSChE from Rice Univ. and MBA from the Univ. of Houston. Leadership and service to AIChE:

- Committed to local sections, he has served the South Texas Section (STS) in many positions. As Chair in 1987, he led the STS through tough times, including resuming the annual regional conferences. He cofounded STS's Young Professional Group and helped start STS's employment program.
- Past Chair of the Career and Education Operating Council (CEOC), providing operating direction for local sections, student chapters, career services and educational programs.
- Treasurer of the Fuels and Petrochemicals Div.
- Original member of Prairie View A&M Univ.'s ChE Advisory Board; served as chair and continues on the Board
- Launched the initiative to provide websites for all local sections
 Lecturer for pre-conference courses and co-author of the award-winning AIChE book, "Refining Overview."



Candidate for Director

Jeffery P. Perl, Chicago Chem Consultants Corp.

Jeff is President of Chicago Chem Consultants and has 25 years serving the chemical/environmental industry in process-related subjects, including design, troubleshooting, and root cause forensic engineering regarding death-related or economic loss failures and USEPA Superfund remediation. ChE education: BS (1977) and PhD (1984), Illinois Institute of Technology; post-doc, Brown Univ. (1984–85). Prior to graduate school, Jeff worked for Safety-Kleen in solvent recycling operations and development. Jeff spent 10 years as Air Force reservist in HQ assignments for the AF Civil Engineer and AF Surgeon General. Jeff is adjunct professor, Univ. of Illinois-Chicago (UIC; senior process design, 2008–present). AIChE service includes Chicago Section Chair



(1993–1994); General Arrangements Chair, 1996 Annual Meeting; Research and New Technology Committee Chair (2005 and 2006); Environmental Div. Treasurer (1997–2001); Military Interaction Committee Chair (1995–2002); Career and Education Operating Council board (2008–present). Jeff is a Midwest AIChE Regional Conference organizer (2006/7/8/9), NCEES ChE PE licensing committee member (2007–present) and an AIChE Fellow (2007).

Katherine S. Ziemer, Northeastern University

Kate Ziemer is an Associate Professor of Chemical Engineering at North-eastern Univ. Kate worked for seven years at DuPont after earning a BS in chemical engineering from Virginia Tech. Her people and technology development experience with DuPont, along with several years of education outreach, inspired her to become a university professor. Kate earned her PhD from West Virginia Univ., and joined Northeastern Univ. in 2001. She has more than 40 publications and 70 presentations on both educational and research topics. She has organized multiple workshops in her research area of multifunctional materials, and participates in several U.S. and global research collaborations. Kate has been an active member of



AIChE since 1994, has held an office in the Boston Local Section, has chaired multiple sessions at national meetings, and developed and led workshops on K–12 Outreach. She is a student chapter advisor (4 Outstanding Chapter Awards; Chem-E-Car Competition: 2nd place in 2002, 1st in 2010), a Societal Impact Operating Council (SIOC) member, and leader of AIChE's K–12 Web Initiative.

Upcoming Meetings

September 15, 2010 Chicago Section Monthly Meeting

Emmet's Brewing Co. Downers Grove, IL

September 12-16,

2010

55th Annual Safety in Ammonia Plants and Related Facilities Sym-

posium Hyatt Regency

San Francisco, CA

ber 1, 2010

September 30 - Octo- 2010 AICHE Midwest Regional Conference

Illinois Institute of Technology

Chicago, IL

2010 AIChE Regional Process Technology Conference Moody October 7-8, 2010

> Gardens Hotel Galveston, TX

November 7—12,

2010

2010 AIChE Annual Meeting,

Salt Lake City, Utah

AIChE National's Live Webinar in September

Introduction to the Pneumatic Conveying of Solids

Presented by: Dr. Karl V. Jacob Wednesday, September 8, 2010

2:00 - 3:00 p.m. ET

Engineers Without Borders - USA: Chemical Engineers Can Make an Impact in the **Developing World**

Presented by: John Cirucci

Wednesday, September 15, 2010

2:00 - 3:00 p.m. ET

Explosion at T2 Laboratories

Presented by: Robert J. Hall

Wednesday, September 22, 2010

2:00 - 3:00 p.m. ET

Business Acumen: How Far Are You Taking

lt?

Presented by: Daniel E. Leone Wednesday, September 29, 2010

2:00 - 3:00 p.m. ET

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