24TH ANNUAL

MAY 11–13, 2004 Hawthorn Suites Champaign, Illinois

Electric Utility Chemistry Workshop

Extending the Life and Reliability of Power Plant Equipment through Improved Chemical Control

Sessions Include:

- Critical aspects of the utility water cycle
- Tutorials given by internationally known experts
- Practical applications from electric utility experience

Format geared toward improved training and continuing education of personnel responsible for electric utility chemistry





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University of Illinois at Urbana-Champaign - Office of Continuing Education Illinois Department of Natural Resources - Illinois State Water Survey

24th Annual Electric Utility Chemistry Workshop - May 11-13, 2004

Extending the Life and Reliability of Power Plant Equipment through Improved Chemical Control

About the Workshop

Now in its 24th year, this comprehensive program features state-of-the-art information on controlling corrosion and improving operation efficiency for fossil- and nuclearfueled power plants. This year's program is geared toward improved training and continuing education of personnel responsible for electric utility chemistry.

More than 3,000 chemists, consultants, and power plant administrators have attended the workshop since its inception in 1981. The 2004 program has been developed by a committee of representatives from midwestern electric utilities, the Illinois State Water Survey, the University of Illinois at Urbana-Champaign, and consultants serving the power industry.

Some of the most popular features of the workshop are the Utility Experience presentations. Seasoned professionals from utility companies discuss their experiences on a range of topics. The entire workshop has been structured to encourage participation from attendees.

A notebook containing current water treatment papers, reports, copies and/or outlines of papers presented, along with product information, is included in the registration fee. Notebooks are also available for those who cannot attend the meeting at \$75 each. See the registration form to order.

Who Should Attend

This workshop is specifically designed for personnel involved in day-to-day decisions affecting the performance of electric utility generation in fossil-fueled and nuclear power plants. The program applies equally to power plant chemists and engineers as well as power plant designers and consultants, industrial and institutional plant engineers, managers, and operators.

Continuing Education Units

Each participant completing the workshop is eligible for 1.6 Continuing Education Units (CEUs) from the University of Illinois at Urbana-Champaign. CEUs are nationally recognized units of achievement, which may be used as evidence of increased performance capabilities and for professional advancement. If your position requires CEUs for certification renewal, please inquire at the registration desk when you arrive for the workshop.

Approval is pending from the Indiana Department of Environmental Management for this program to apply to requirements for Wastewater Treatment Plant Operators. Indiana Department of Environmental Management forms will be available at the registration desk.

Tuesday, May 11

Noon Registration

1:00 PM Welcome — K. Anthony Selby, Conference Chair Elaine Wolff, University of Illinois at Urbana-Champaign

Opening Session—Instrumentation

Steam and Water Sampling William T. Boyd, Sentry Equipment Corporation

Key Cycle Chemistry Measurements: Conductivity and pH David M. Gray, Mettler-Toledo Thornton, Inc.

Degassed Cation Conductivity and Its Affect on Power Plant Chemistry David M. Zabarsky, Martek Instruments, Inc.

Dissolved Oxygen Measurements in Water Treatment Joe Novak, Hach Company

Solid-State Electrodes for Sodium Monitoring: Long-Life, "Zero" Maintenance and Low Detection Limit—A Comparison to Conventional Sodium Electrodes Burt Sherry and Jerry Salpeter, Scientific Instruments

Case Studies of Ion Chromatography Use in Fossil and Combined Cycle Power Plants Beverly Newton, Dionex Corporation

New Automation Technology Provides Improved Cooling Systems Chemistry Control Peter R. Ten Eyck, Nalco Company

5:00 PM Reception and Vendor Display

Vendors in the industry will have displays of their latest products and services for participants to view during the reception.

Check the Web site: www.conferences.uiuc.edu/eucw for a list of vendors.

Wednesday, May 12

7:30 AM Registration

8:00 AM Morning Session—Environmental

Major Environmental Issues Facing the Electric Utility Industry Michael Menne, Ameren

EPA's New Regulations for Clean Water Act Section 316 (B) Fish Protection at Cooling Water Intakes Kent Zammit and Doug Dixon, EPRI

An Update on the Use of Thermogravimetry for Flue Gas Desulfurization Solids Analyses Bradley J. Buecker, Kansas City Power & Light Company

Recent Developments in Flue Gas Desulfurization Technology Carl V. Weilert, Burns & McDonnell Engineering Company

SCR Operating Experience, Dynegy Midwest Generation, Baldwin Energy Complex Zack Kersulis, Dynegy Midwest Generation

SCR Startup and Shutdown Issues Volker Rummenhohl, Tackticks, LLC.

Effective Catalyst and SCR System Management John Cochran, CERAM Environmental, Inc.

Lunch (provided)

Afternoon Session—Cycle Chemistry—Combined Cycle

Overview of Current Feedwater and Boiler Water Treatment Programs

K. Anthony Selby, Water Technology Consultants, Inc.

Corrosion Monitoring in Fossil Fired Utility Steam Generation

Douglas I. Bain, Bain & Associates Consulting Ltd., and Joe Bates, iSagacity Inc.

Southern Company's Approach to Cycle Chemistry Sam J. McChesney, Southern Company

Fossil Plant Cycle Chemistry Improvement Program at Consumers Energy Stephen Donner, Consumers Energy

Flow Accelerated Corrosion: Expect (and Inspect for) the Unexpected David G. Daniels, Mechanical & Materials Engineering

Cycle Chemistry Commissioning Otakar Jonas and Lee Machemer, Jonas, Inc.

Plant Construction and Commissioning - A Manufacturer's Viewpoint of Pre-Operational Cleaning David M. Smyth, Siemens Power Generation (SPG)

Thursday, May 13

7:30 AM Registration

8:00 AM Closing Session—General Session

Internet Diagnostic Technology of Water Chemistry in Power Plants Joe Bates and Peter Millett, iSagacity Inc.

Selection of Stainless Steel Alloys for Power Plant Heat Exchanger Applications Edward R. Blessman, Trent Tube

Rapid Microbiological Monitoring Methods Josée Chalut and Darrell G. Rose, Buckman Laboratories Inc.

Condensate Polisher Experience: Inspection, Troubleshooting, and Design Aspects John E. Roark, Roark and Associates, Inc.

Panel—Cost Reduction in Power Plants: Doing More with Less Gregg Finigan, Springfield City Water Light & Power - Covering Expanded Responsibilities with No Additional Staff Gary Bland, Consultant - More Responsibility for Operators and Delaying Chemical Cleanings Chris Skates, Electric Energy Inc. - Infantile Copper Failure: Mitigation on a Budget Michael Adrihan, We Energies - Safe Bulk Chemical Deliveries

Noon Adjourn

Presentation abstracts can be found on the Web site: www.conferences.uiuc.edu/eucw

Program Planning Committee

Michael Adrihan, We Energies

Al Aschoff, Consultant

Gary Bland, Consultant

Brad Buecker, Kansas City Power & Light Company

Prentiss Carter, AES Edwards Power Plant

Chuck Curtiss, Illinois State Water Survey

Stephen Donner, Consumers Energy

Gregg Finigan, Springfield City Water Light & Power

Warren Gilbert, Consultant

Scott Glover, Cinergy Power Generation Services LLC

Kimberly Hook, Owensboro Municipal Utilities

Russell Lane, Water Treatment Consultant

Ron Melton, Western Farmers Electric Coop

Bill Portz, Dynegy Midwest Generation

Ed Rainer, Ameren Energy Generating Company

Scott Reeves, Dominion Energy

John Roark, Roark & Associates, Inc.

Brian Schmidt, Ameren UE

K. Anthony Selby, Water Technology Consultants LLC

Chris Skates, Electric Energy Inc.

Dave Stamp, Northern Indiana Public Service Company

Michael Statler, Associated Electric Cooperative, Inc.

Kimberly Teeters, AES Eagle Valley

Ronald Wine, Ronald D. Wine Consulting

Elaine Wolff, University of Illinois at Urbana-Champaign

General Information

Registration - The full meeting registration fee includes all conference materials, the reference notebook, Tuesday reception, Wednesday lunch, and morning and afternoon breaks. If received on or before April 26, the fee is \$350. After April 26, the fee is \$400.

Single day registration is also available. The registration fee of \$200 includes meals or breaks served on the day you attend, speaker handouts for the day you attend, and a participant roster.

Payment in full is expected upon registration for the workshop. Please use the registration form as your invoice. Phone or fax registrations must have a credit card number. Payment by cash, check, or credit card must accompany all on-site registrations. **Location** - All program sessions will be held at the Hawthorn Suites, 101 Trade Centre Drive, Champaign, Illinois 61820. Phone: 217-398-3400.

Schedule - Registration begins Tuesday, May 11 at noon, followed by the Opening Session from 1:00–5:00 PM. A social hour from 5:00–8:00 PM gives the opportunity to talk with colleagues, vendors, and speakers. The workshop adjourns at noon on Thursday, May 13.

Vendor Displays - Each year the planning committee selects a topic to focus on during the Opening Reception and Vendor Displays. This year the topic is "Instrumentation." Invitations have been extended to vendors that deal with this topic. If you have not been contacted and feel your company's products fit into this theme, please contact Tony Selby at 303-679-0080 or e-mail tselby@qwest.net.

Cancellations - If you register and find you cannot attend, a full refund will be made if you notify the Conferences & Institutes office (217-333-2880) by April 26, 2004. If you cancel between April 26 and May 7, a refund less a \$50 processing fee will be made. No refunds will be issued after May 7. You may send someone in your place.

Lodging - Reservations should be made directly with the hotel. Be sure to mention that you are attending the "Electric Utility Chemistry Workshop," as a block of rooms has been reserved at special conference rates. Make your reservations early--after April 14, 2004, the rooms will be released on a first-come, first-served basis.

> Hawthorn Suites 101 Trade Centre Drive Champaign, IL 61820 217-398-3400 Conference Rate: Single or Double - \$75

Submission of Questions - Registrants are strongly encouraged to submit questions for discussion by the speakers. Please send your questions to: Elaine Wolff, Conferences & Institutes, 302 East John Street, Suite 202, Champaign, IL 61820, or e-mail eucworkshop@ad.uiuc.edu.

Transportation – The Champaign (Willard) Airport offers daily flights to and from St. Louis (by American Connection), Chicago O'Hare (by American Eagle), and Detroit (by Northwest Airlink). AMTRAK service is also available. Champaign-Urbana is located on Interstates 72, 74, and 57; 135 miles south of Chicago and 120 miles west of Indianapolis.

For more information contact:

Conferences & Institutes University of Illinois at Urbana-Champaign 302 East John Street, Suite 202 Champaign, Illinois 61820 Phone: 217-333-2880 Fax: 217-333-9561 E-mail: eucworkshop@ad.uiuc.edu



Electric Utility Chemistry Workshop

R E G I S T R A T I O N F O R M

C-FOAP # 1-301768-912010-305300-912115 • FEIN# 37-6000511 • Rev: EUCW 2004 Please type or print name exactly as it should appear on badge:

First Name		
Last Name		
Organization		
Address		
City	State	
Zip	Country	
E-mail		
Business Phone		
Fax Number		

REGISTRATION FEES

Full Conference Fee – on or before April 26: \$350

- Full Conference Fee after April 26: \$400
- One Day Fee: \$200
 Indicate which day you will attend: Tuesday
 Wednesday
 Thursday
- O Notebook Only: \$75 (each person with full registration receives a notebook)

METHOD OF PAYMENT

- Check enclosed (make payable to the University of Illinois)
- I prefer to pay by credit card:

◯ Visa ◯ Amex ◯ MasterCard ◯ Discover

Card #	
V-Code	(The V-Code is a 3-digit, non-embossed number printed in the signature box on the back of Visa, MasterCard, and Discover cards. On American Express, the 4-digit number is printed above the account number on the face of the card. The V Code is recorded as an additional society to proceed the
Expiration Date	caru. The v-code is recorded as an additional security precaution.
Signature	

4 WAYS TO REGISTER

Online registration at www.conferences.uiuc.edu/eucw

Complete the form and mail to: Cashiering Office University of Illinois 162 Henry Administration Building 506 South Wright Street Urbana, Illinois 61801

Fax: Conferences & Institutes 217-333-9561

Call: 217-333-2880 or toll free 877-455-2687

Note: Payment in full is expected upon registration for the workshop. Please use this registration form as your invoice.

> For vendor exhibit registration, contact Conferences & Institutes at 217-333-2880 or e-mail eucworkshop@ad.uiuc.edu

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