

38th Annual

**ELECTRIC  
UTILITY  
CHEMISTRY  
WORKSHOP**

June 5–7, 2018

12

**Cc**

Cycle Chemistry

3

**I**

Instrumentation

47

**Cw**

Cooling Water

**Aq**

Air Quality

2

**Cp**

Condensate Polishing

80

**Mw**

Makeup Water



**EXTENDING THE LIFE AND RELIABILITY OF POWER PLANT  
EQUIPMENT THROUGH IMPROVED CHEMICAL CONTROL**

Hawthorn Suites by Wyndham Champaign  
Champaign, Illinois

[www.conferences.illinois.edu/eucw](http://www.conferences.illinois.edu/eucw)

Sponsored by



Center for Innovation in Teaching & Learning

and the Prairie Research Institute—Illinois State Water Survey

# About the Workshop

Now in its 38th year, this comprehensive program features state-of-the-art information on controlling corrosion, improving operation efficiency, and meeting environmental challenges in fossil- and nuclear-fueled power plants. This year's program is geared toward improved training and continuing education of personnel responsible for electric utility cycle and environmental chemistry.

Nearly 5,000 chemists, consultants, and power plant administrators have attended the workshop since its inception in 1981. The 2018 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.

The Electric Utility Chemistry Workshop will feature an optional pre-workshop seminar on the basics of an important aspect of power plant water treatment. This half-day training seminar on Tuesday morning, June 5 will provide information on the basics of air & water environmental treatment processes for power plants.

## 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 1.3 Continuing Education Units (CEUs) from the University of Illinois at Urbana-Champaign. The 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 for this program to apply to requirements for Wastewater Treatment Plant Operators.

This workshop also offers Professional Development Hours (PDHs) for professional engineers.

## Pre-Workshop Seminar

TUESDAY, JUNE 5, 2018 ■ 8:00–11:30 AM



### THE BASICS OF AIR & WATER ENVIRONMENTAL TREATMENT PROCESSES FOR POWER PLANTS

The Electric Utility Chemistry Workshop will feature an optional pre-workshop seminar on the basics of an important aspect of power plant water treatment. This half-day training seminar will provide fundamental information regarding air and water environmental treatment processes. The seminar will be taught by Brad Buecker, ChemTreat, and Michael Pudvay, Veolia.

The Environmental Protection Agency's "war on coal" has kept much attention focused on air emissions, including those of the greenhouse gas, carbon dioxide. However, liquid emissions from all plants, not just coal-fired units, are coming under increased regulation. The 2018 pre-conference seminar will focus upon emerging and evolving liquid effluent emissions guidelines, and will examine technologies to allow plant owners, operators, engineers, and chemists to meet new requirements. Equipment

selection, additions, or modifications may influence not only wastewater treatment but other aspects of plant operation such as makeup and cooling water treatment. In some cases, zero liquid discharge (ZLD) may be the only viable wastewater treatment option. All of these issues will be examined in the seminar.

The seminar will include a hard copy of the PowerPoint slides so that attendees can take notes throughout the presentation. The format will be informal, with questions allowed during the presentations. The seminar will be held from 8:00 to 11:30 AM at the Hawthorn Suites. Use the registration form to sign up. The pre-workshop seminar registration fee includes all seminar materials and a morning break. If received on or before May 22, the fee is \$50. After May 22, the fee will be \$75. Attendance at the Electric Utility Chemistry Workshop is not required to attend this seminar.

# Schedule of Events

## TUESDAY

### NOON REGISTRATION

#### 1:30 PM WELCOME

K. Anthony Selby, Water Technology Consultants, Inc., Workshop Chair

#### 1:45 PM Environmental Regulations Effecting the Electric Utility Update

Bert Valenkamph, NIPSCO

#### 2:15 PM Gravity Chemical Feed Systems for Cooling Towers at NIPSCO's R. M. Schahfer Station

Brian Snyder, NIPSCO

#### 2:45 PM Managing Boiler Chemical Cleaning Wastewater—Options Under NPDES and RCRA—A Case Study

Diane Martini | Brett Mack, Burns & McDonnell

### 3:15 PM BREAK

#### 3:30 PM Resin Fouling, Etc., or Trace Contaminants

Peter Meyers, ResinTech

#### 4:00 PM Using Sample System Magnetic Trap to Approximate Iron Transport Measurement

David Webster, Solutions Inc.

#### 4:30 PM Microbiologically Influenced Corrosion: What It Is; What It Isn't; and Associated Myths

George Licina, Structural Integrity

### 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.

June

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“Offers the best value for training for the money.”

## WEDNESDAY

### 7:30 AM REGISTRATION

#### 8:00 AM Introduction and Announcements

K. Anthony Selby, Water Technology Consultants, Inc., Workshop Chair

#### 8:05 AM Closed Cooling Water Contamination and Online Remediation

Michael Masaitis, FPL

#### 8:35 AM Interpretation of Plant Chemistry Data and Applying This for Solving Problems

Robert Mitzel, Dynegy

#### 9:05 AM HP Turbine Foam Cleaning

Chris Taylor, Ameren

### 9:35 AM BREAK

#### 10:15 AM Understanding and Effectively Managing Your Condensate Polishing System

Colleen Layman, HDR, Inc.

#### 10:45 AM Corrosion Product Transport Monitoring with Nephelometry

Randy Turner, Swan Analytical USA

#### 11:15 AM Flow Accelerated Corrosion

Steve Shulder (tentative), EPRI

### 12:00 PM LUNCH BREAK

#### 1:00 PM CCRO: The New Standard for Boiler Makeup & Process Water

Michael Boyd, Desalitech

#### 1:30 PM Factors Affecting Selection of Technology for Water Treatment

Ganesh Kamatkar, Air Liquide

#### 2:00 PM Unit 3 Silica Contamination; A Perfect Storm

Branden Powell, City Water Light and Power

### 2:30 PM BREAK

#### 3:15 PM Safety Considerations of Boiler Chemical Cleaning

Nisso Fazliddinova, FPL

#### 3:45 PM Intelligent Chemistry Alarms

John Powalisz, Sentry Equipment Corporation | Doug Hubbard, AEP

#### 4:15 PM An Ounce of Prevention

Dan Dixon, LES | Brad Buecker, ChemTreat

#### 4:45 PM Trends in Biological Treatment for FGD Wastewater

Diane Martini | Sidney Vadbunker, Burns & McDonnell

June

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## THURSDAY

### 7:30 AM REGISTRATION

#### 8:00 AM Introduction

K. Anthony Selby, Water Technology Consultants, Inc., Workshop Chair

#### 8:05 AM Condenser and Heat Exchanger Cleaning

Patrick Lane, Conco

#### 8:35 AM Neutralizing Amines

David Morey (tentative), ChemStaff

#### 9:05 AM Evaluation of Long-Term Membrane Performance

Dennis Bitter, Atlantium

### 9:35 AM BREAK

#### 10:00 AM Demin 201—Understanding Water Analysis to Select Optimal Mobil Demin System

Lauren Barbir, SUEZ—Water Technologies & Solutions

#### 10:30 AM Effects of Film Forming Products on Iron Monitoring in the Steam Cycle

Ken Kuruc, Hach

#### 11:00 AM Extending Tube Life

Jim Mitchell, Plastocor

#### 11:30 AM Wastewater Chlorination Compliance

Andrea Gulla, Thermo Fischer

#### 12:00 PM Workshop Wrap Up

K. Anthony Selby, Water Technology Consultants, Inc., Workshop Chair

June

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“The workshop provides great opportunities to talk with other professionals in my field.”

# General Information

## REGISTRATION

**Full Workshop Registration on or before May 22: \$400; after May 22: \$450.** The registration fee includes all conference materials, Tuesday reception, Wednesday lunch, and morning and afternoon breaks.

**One Day Registration: \$225.** The registration fee includes meals or breaks served on the day you attend, speaker handouts for that day, and a participant roster.

**Pre-Workshop Seminar on or before May 22: \$50; after May 22: \$75.** The seminar fee includes all seminar materials and morning break.

Please note that this registration form is to be used for workshop participants. Invitations will be sent to potential vendors during the 1st week of February.

## LOCATION

All program sessions will be held at the Hawthorn Suites by Wyndham Champaign, 101 Trade Centre Drive, Champaign, Illinois 61820. Phone: 217-398-3400.

## WORKSHOP SCHEDULE

Registration for the regular workshop begins Tuesday, June 5 at noon, followed by the Opening Session from 1:30 to 5:00 PM. A social hour from 5:00 to 8:00 PM gives participants the opportunity to talk with colleagues, vendors, and speakers. The workshop adjourns at noon on Thursday, June 8.

## VENDOR DISPLAYS

Companies who work with the Electric Utility Chemistry industry are encouraged to participate with a display during the conference. Space is limited, so new companies are encouraged to contact Scott Randall at svrandal@illinois.edu as soon as possible if they are interested in being a vendor.

## CANCELLATIONS

If you register and find you cannot attend, a refund, less a \$50 processing fee, will be made if you notify the CITL Conference Services office (217-244-9687 or Scott Randall at svrandal@illinois.edu) by May 30, 2018. No refunds will be issued after May 30. 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 May 6, 2018, the rooms will be available on a first-come, first-served basis.

Hawthorn Suites by Wyndham Champaign  
101 Trade Centre Drive  
Champaign, IL 61820  
217-398-3400  
Conference Rate: \$76.99, Single or Double

## TRANSPORTATION

The Champaign (Willard) Airport offers daily flights to and from Chicago O'Hare and Dallas (by American Eagle). Amtrak service is also available. Champaign-Urbana is accessible from interstates 72, 74, and 57; it is 135 miles south of Chicago and 120 miles west of Indianapolis.

## PROGRAM PLANNING COMMITTEE

*Al Aschoff, Consultant (emeritus member)*  
*Brad Buecker, Kiewit Power Engineers*  
*Prentiss Carter, Dynegy*  
*Steve Donner, Sheppard T Powell Associates*  
*Nisso Fazliddinova, Florida Power and Light*  
*Warren Gilbert, Consultant*  
*Scott Glover, Prairie State Generating Company*  
*Brandon Jeffries, We Energies*  
*Ron Melton, Western Farmers Electric Coop*  
*Bob Mitzel, Dynegy*  
*Jeremy Overmann, Illinois State Water Survey*  
*Branden Powell, City Water, Light & Power*  
*Scott Randall, University of Illinois at Urbana-Champaign*  
*Scott Reeves, Consumers Energy*  
*K. Anthony Selby, Water Technology Consultants, Inc.*  
*David Stamp, Northern Indiana Public Service Company*  
*Chris Taylor, Ameren Missouri*  
*Ronald Wine, Ronald D. Wine Consulting*

“My supervisor always approves my request to attend this workshop.”



**FOR MORE INFORMATION, CONTACT:**  
Center for Innovation in Teaching & Learning  
University of Illinois at Urbana-Champaign  
901 West University Avenue  
Urbana, IL 61801  
Phone: 217-244-9687  
Fax: 217-333-9561  
E-mail: nsimp1@illinois.edu

## 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

2018 Training Session on **The Basics of Cooling Water and Cooling Treatment** to be held on Tuesday morning (June 7)

# Registration Form

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

For vendor exhibit registration, contact **Nancy Simpson at 217-244-9687 or nsimp1@illinois.edu.**

## 3 EASY WAYS TO REGISTER

1  
Online

[www.conferences.illinois.edu/eucw](http://www.conferences.illinois.edu/eucw)

2  
Phone

Call 217-244-9687 to register by phone.

3  
Mail

Complete the form and mail to:

Nancy Simpson  
Center for Innovation in Teaching & Learning  
University of Illinois at Urbana-Champaign  
901 West University Avenue, Suite 201  
Urbana, IL 61801 USA



Early Registration Discount through May 22

## CONTACT INFORMATION

Please type or print name exactly as it should appear on badge

First Name \_\_\_\_\_

Last Name \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_ Country \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

E-mail \_\_\_\_\_

Please check if attending your first Electric Utility Chemistry Workshop

## REGISTRATION FEES

**The Basics of Cooling Water and Cooling Treatment**

\$50 (on or before May 22)  \$75 (after May 22)

**Workshop Fee**

\$400 (on or before May 22)  \$450 (after May 22)

**One-Day Fee**

\$225

Indicate which day you will attend  Tuesday  Wednesday  Thursday

**Reference Materials Only**

\$75 (each person with full registration receives these materials)

## METHOD OF PAYMENT

Check enclosed (make payable to the University of Illinois)

Please charge credit card  Visa  MasterCard  AmEx  Discover

Card # \_\_\_\_\_

Expiration Date \_\_\_\_\_ Security Code \_\_\_\_\_

Signature \_\_\_\_\_

The Security Code is a 3-digit, non-embossed number printed on the right upper corner of the signature panel on the back of Visa, MasterCard, and Discover cards. On American Express, the 4-digit number is printed above the account number on the front of the card. The Security Code is recorded as an additional security precaution.

Cw  
Cooling Water

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I  
Instrumentation

12  
Cc  
Cycle Chemistry

7  
Aq  
Air Quality

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Cw  
Cooling Water

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Instrumentation

12  
Cc  
Chemical Control

80  
Cs  
Chemical Safety

2  
C



Center for Innovation in Teaching & Learning  
University of Illinois at Urbana-Champaign  
901 West University Avenue, Suite 201  
Urbana, IL 61801

**MAILROOM:**  
If the person on the label is no longer employed at your organization, please route this material to the replacement or department supervisor.

To receive additional information about the workshop: Call 217-244-9687 or e-mail [nsimp1@illinois.edu](mailto:nsimp1@illinois.edu).

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Air Quality

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Cw  
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