



CONFERENCE PROGRAM

A REGIONAL TECHNICAL EDUCATION CONFERENCE OF INDUSTRIAL OPERATORS AND MUNICIPAL PRETREATMENT COORDINATORS

April 10-12, 2018
WYNDHAM INDIANAPOLIS WEST
Conference Center

Pollution Prevention and New Technologies in Wastewater Treatment





Water Quality Protectors

April 2018 Page 2

Water Quality Protectors!

IIOA IIOA

Volume 18 Issue 4

IIOA Journal

www.iioa.net

A NEWSLETTER PUBLISHED FOR PROFESSIONALS IN INDUSTRIAL WASTEWATER TREATMENT

IWEA Welcomes Attendees



CHERYL CARLSON
IWEA
MUNICIPAL
PRETREATMENT
COMMITTEE
CHAIR

Greetings and welcome to WITtec 2018 from the IWEA Pretreatment Committee. Through collaboration and knowledge sharing, WITtec provides a forum for connecting people with information. As you enjoy this year's conference, take to time to ask questions and interact with your fellow professionals. You may believe that your issues and challenges are uniquely yours, but more likely than not, someone attending this conference is facing something similar. Learn, grow, and collaborate.

As you think about this year's theme and participate in the many technical sessions, continue to seek opportunities to learn about reducing, eliminating, or preventing pollution. Encourage thinking about things in a new way rather than how it's always been done.

Pollution Prevention and New Technologies in Wastewater Treatment

Welcome to WITtec 2018

We hope you enjoy the Conference this year. We would like to thank our exhibitors, speakers, volunteers and attendees for making WITtec the place where Water Quality Protectors Meet. And thank you for choosing WITtec for your choice of wastewater education opportunities. Our theme



JIM COLLINS
IIOA PRESIDENT

Pollution Prevention and New

Technologies in Wastewater Treatment is bringing timely topics to the attention of our attendees. The courses are full and we hope you find them worthwhile place to earn contact hours and credentials. Everyone is welcome to attend the meet'n greet exhibit hall session and speak with our exhibitors from 4:30—6:30 pm on Wednesday.

As is customary, on Thursday we offer the concurrent sessions (Industrial and Municipal Pretreatment), in which attendees may choose topics of interest and go between the sessions each hour. Please visit with the exhibitors during your breaks as well. The Awards program is at Lunch on Thursday and we would like to congratulate the deserving awardees.

Thursday Luncheon Awards Program—Hall of Champions 2 & 3

The IIOA Industrial Awards program will be held at lunch on Thursday.

The Awards Committee would like to congratulate the following Awardees:

2018 Industrial Class D Operator of the Year

2018 Industrial Operator of the Year 2018 Industrial Plant and of the Year

Mr. Dwane Smith
Environmental Management Solutions, Inc.

Mr. Curtis Prater
Perdue Farms, Washington, IN

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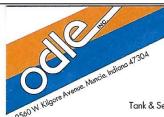
| Time | APRIL 10 TUESDAY - SCHEDULE OF EVENTS | | | | | | | |
|-------------------------|--|---|---------------------------------------|--|--|--|--|--|
| Noon | Registration - CONFERENCE CENTER ENTRANCE (West Side of Hotel) | | | | | | | |
| Golden | Pollution Prevention Technology and Realities in Industrial Wastewater Treatment | | | | | | | |
| Ballrms | 1:00 PM | Reducing Impact on Wastewater Treatment | Jim Collins, Brenntag Mid-South | | | | | |
| 4-5 | 2:00 PM | Operation and Filter Press Maintenance A-Z | Scott Hardy, H&T Systems | | | | | |
| 2:50 | 3:00 PM | Metal Fin P2; P2 in Food | John Dailey, Brenntag Mid-South | | | | | |
| Break | 4:00 PM | Pollution Prevention Techniques in Ind WW | Jim Collins, Brenntag Mid-South | | | | | |
| Time | APRIL 11 WEDNESDAY - SCHEDULE OF EVENTS | | | | | | | |
| 7:00 AM | Registration - CONFERENCE CENTER ENTRANCE (West Side of Hotel) | | | | | | | |
| Golden Ballroom 7 | The IWEA Pretreatment Committee is sponsoring the Registered Pretreatment Coo (RPC) Course. All are welcome to attend and earn the 8 hours; however, to earn to tial and lapel pin one must pass the credential exam and have the required experience. | | | | | | | |
| | | Title of Module | Presenter | | | | | |
| | 8:00 AM | Pretreatment Standards | Tamara Roberts, City of Bloomington | | | | | |
| | 9:00 AM | Sewer Use Ordinance & Enforcement Resp Plan | Cheryl Carlson, Citizens Energy Group | | | | | |
| | 10:00 AM | Wastewater Sampling | John Rigdon, Element Materials Tech. | | | | | |
| 9:50 | 11:00 AM | Industrial Waste Surveys | Erin Johnson, Connersville Utilities | | | | | |
| Break | NOON | LUNCH INCLUDED - HALL OF CHAMPIONS | | | | | | |
| | 1:00 PM | Industrial Inspections | Lloyd Lamberton, Evansville Utilities | | | | | |
| | 2:00 PM | Industrial User Permits | Duane Griner, City of Warsaw | | | | | |
| | 3:00 PM | Fats, Oils, and Grease | Bill Boetcker, Aqua Indiana | | | | | |
| | 4-5 PM | RPC - Certification Exam | RPC Instructors | | | | | |
| Golden Ballroom | IIOA - REGISTERED INDUSTRIAL WASTEWATER PROFESSIONAL COURSE (RIWP) Basic Certification Course. An overview of the basic principles of industrial wastewater treatment. | | | | | | | |
| 6 | | Title of Module | Presenters | | | | | |
| | 8:00 AM | Introduction | Tom Martin, Delta Chem & Equip | | | | | |
| | 9:00 AM | Rules and Regulations | Russ Eiler, Allegion | | | | | |
| 9:50 | 10:00 AM | , | Bradley Crowe | | | | | |
| Break | 11:00 AM | Chemical Treatment | Russ Eiler | | | | | |
| | NOON | LUNCH INCLUDED - HALL OF CHAMPIONS | | | | | | |
| | 1:00 PM | Physical Treatment | Tom Martin | | | | | |
| 2:50 | 2:00 PM | Pumps and Instrumentation | Russ Eiler | | | | | |
| | 3—5 PM | RIWP - Certification Exam | Russ Eiler | | | | | |

| Time | APRIL 11 WEDNESDAY - SCHEDULE OF EVENTS | | | | | | | |
|---|--|---|---|--|--|--|--|--|
| 7:00 AM | Registration - CONFERENCE CENTER ENTRANCE (West Side of Hotel) | | | | | | | |
| Golden | IIOA - 2018 INDUSTRIAL HOT TOPICS | | | | | | | |
| Ballrms | *A discussion about relevant industrial issues impacting chemical and physical treatments. | | | | | | | |
| 4-5 | This session will focus on issues of concern to all industries and includes: | | | | | | | |
| | Title of Module | | Presenter | | | | | |
| | 8:00 AM | Part 1 Anatomy of a Startup - Current WWT Topics | Jim Collins, Brenntag Mid-South | | | | | |
| 9:50 | 9:00 AM | Part 2 WWT Topics - Oxidation Chemistry/Regs Update | | | | | | |
| Break | 10:00 AM | New Technologies—Microbiocides, Ind. ww | Jeff Long, Buckman Labs | | | | | |
| | 11:00 AM | Hands On Jar Testing Demo—Removing Pin Floc | Dave Taylor, AT Environmental | | | | | |
| | NOON | LUNCH INCLUDED—HALL OF CHAMPIONS | | | | | | |
| | 1:00 PM | pH Illustrated | Eric Link, Labtronx | | | | | |
| 2:50 | 2:00 PM | | | | | | | |
| | 3:00 PM | Instrumentation and Testing | Austin Collins, Hach | | | | | |
| Break | 4:00 PM | Bioaugmentation—Activated Sludge | Patrick Beamon, Brenntag Mid-South | | | | | |
| Golden Ballrms | | dustrial Environmental Management Ma www.Masters Certification and lapel pin in t | | | | | | |
| Golden Ballrms 1-3 | Earn a no | dustrial Environmental Management Ma ew Masters Certification and lapel pin in t d aspects of wastewater treatment and po | his Masters course that covers | | | | | |
| Ballrms 1-3 | Earn a no | ew Masters Certification and lapel pin in t | his Masters course that covers | | | | | |
| Ballrms 1-3 9:50 | Earn a no | ew Masters Certification and lapel pin in t d aspects of wastewater treatment and po | this Masters course that covers ollution prevention. | | | | | |
| Ballrms 1-3 | Earn a no | ew Masters Certification and lapel pin in to dispect of wastewater treatment and positive of Module | this Masters course that covers ollution prevention. Presenter | | | | | |
| Ballrms 1-3 9:50 | Earn a no advance | ew Masters Certification and lapel pin in to dispect of wastewater treatment and positive of Module Rules and Regulations | chis Masters course that covers collution prevention. Presenter Russ Eiler, Allegion | | | | | |
| Ballrms 1-3 9:50 | Earn a no advance 8:00 AM 9:00 AM | ew Masters Certification and lapel pin in to dispects of wastewater treatment and positive of Module Rules and Regulations Stormwater Management | chis Masters course that covers ollution prevention. Presenter Russ Eiler, Allegion William Boetcker, III Aqua | | | | | |
| Ballrms 1-3 9:50 Break | Earn a no advance 8:00 AM 9:00 AM 10:00 AM 11:00 AM | Title of Module Rules and Regulations Stormwater Management CWA, Clean Air Act National Pretreatment Program LUNCH INCLUDED—HALL OF CHAMPIONS | chis Masters course that covers ollution prevention. Presenter Russ Eiler, Allegion William Boetcker, III Aqua Shane Wingler, Supreme Corp. William Boetcker, III Aqua | | | | | |
| Ballrms 1-3 9:50 Break | 8:00 AM 9:00 AM 10:00 AM 11:00 AM NOON 1:00 PM | w Masters Certification and lapel pin in to dispect of wastewater treatment and positive of Module Rules and Regulations Stormwater Management CWA, Clean Air Act National Pretreatment Program | chis Masters course that covers ollution prevention. Presenter Russ Eiler, Allegion William Boetcker, III Aqua Shane Wingler, Supreme Corp. | | | | | |
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| Ballrms 1-3 9:50 Break 2:50 Break NOON 12:00 | 8:00 AM 9:00 AM 10:00 AM 11:00 AM NOON 1:00 PM 2:00 PM 3-5 PM IUNCH IN | Title of Module Rules and Regulations Stormwater Management CWA, Clean Air Act National Pretreatment Program LUNCH INCLUDED—HALL OF CHAMPIONS Pretreatment Inspections Hazardous Waste Management IEM-M Certification Exam CLUDED IN SESSION AND COURSES —Hall of Champions ness Meeting - Financial Report, Election of Directions | chis Masters course that covers collution prevention. Presenter Russ Eiler, Allegion William Boetcker, III Aqua Shane Wingler, Supreme Corp. William Boetcker, III Aqua Justin Maxwell, Delta Chem & Equip Justin Maxwell IEM-M Instructors | | | | | |

APRIL 12, 2018 THURSDAY — SCHEDULE OF CONCURRENT SESSIONS (FEEL FREE TO GO BETWEEN SESSIONS) All Hours Technical Except as Noted

| TIME | INDUSTRIAL SESSION | PRETREATMENT SESSION | | | | |
|------------|--|---|--|--|--|--|
| | Hall of Champions 1 | Golden Ballrooms 4-5 | | | | |
| 8:00 AM | The Realities of Water and Wastewater, Jim Collins, IIOA President, Brenntag Mid South—Out in the Field Not in the Books Electronic Manifest Update, Angela Martin, Heritage-Environmental | IDEM/EPA Pretreatment Program Update Natalie Maupin, Pretreatment Coordinator, Office of Water Quality Newton Ellens, Pretreatment Program, US EPA Region V | | | | |
| 9:00 AM | Biological Removal, Pat Beamon and Mike Gerardi, Brenntag | Panel Discussion-Lab Results that Don't Make Sense—Now What? John Rigdon Panel Moderator | | | | |
| 9:50 AM | Break—Exhibit Hall | Break—Exhibit Hall | | | | |
| 10:20 AM | The Legislative Agenda Dr. Bill Beranek, Jr. (General) Indiana Environmental Institute | Panel Discussion-Fats, Oils, and Grease Program Lessons Learned: Bill Boetcker, Aqua Indiana Garth Farley, Biodyne ; Lynn Brabec, City of Elkhart | | | | |
| 11:10 AM | IDEM Update (General) Bruno Pigott, Commissioner, Indiana Department of Environmental Management | Combined Session: Please proceed to the Industrial Session in Golden 1-4 for Bruno Pigott, IDEM Commissioner and his IDEM update. | | | | |
| 12:00 PM | Lunch (included) - Hall of Champions #2 & #3 Awards Program | Lunch (included) - Hall of Champions #2 & #3 Awards Program | | | | |
| 1:00 PM | Pretreatment Inspections, Lloyd Lamberton, City of Evansville | Pollution Prevention in the Metal Finishing Industry, Larry Beals, Winona PVD | | | | |
| 2:00 PM | How do you know what you need for a Wastewater Treatment Plant Tim Courtney, EPS Wastewater. | Stormwater – Illicit Discharge and Sampling Panel Discussion – Richard Dewitt, Franklin, IN (IWEA Storm Water Committee) and Skipp Kropp, Steptoe and Johnson | | | | |
| 2:50 PM | Break—Exhibit Hall | Break—Exhibit Hall | | | | |
| 3:20 PM | Compliance with Air Regs Scrubber Water, Clean Air Act and impact on Wastewater Treatment. Guillermo (Gary) Jose Vanegas, VANAIRE | US EPA Criminal Investigations Leonard Merriam, Criminal Investigations Division, US EPA | | | | |
| 4:10 PM | Industrial Operator Challenge Teams Compete for Trophy | Municipal Pretreatment Session Ends. Feel free to attend the Industrial Session. | | | | |
| 5:00 PM | Session Ends—Turn in signed contact | Session Ends—Turn in signed contact forms at registration desk area. | | | | |
| LINI | forms at registration desk area. | registration desk area. | | | | |

IDEM has approved all Thursday sessions for technical hours (except as noted above) for wastewater treatment contact hours.



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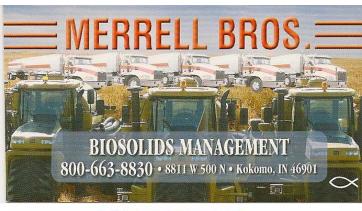
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Wednesday Meet n Greet

Exhibit Hall
Golden Preconvene
4:30 pm—6:30 pm
Join your colleagues for refreshments and drinks.

*Exhibitors listed as of 3/15/2018



Dayton Laboratory 25 Holiday Drive, Englewood, Ohio 45322 Phone: 937.832.8242 Fax: 937.832.2868

Indianapolis Laboratory 7726 Moller Road, Indianapolis, IN 46268 Phone: 317.228.3100 Fax: 317.872.6189

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Thank you for Attending!

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317-739-3303

Concurrent Sessions Speaker Contact Information

Municipal Pretreatment Session

William Boetcker, III <u>waboetck-er@aquaamerica.com</u>

Larry Beals <u>larrybeals@winonapvd.com</u>

Richard Dewitt rdewitt@franklin.in.gov

Newton Ellens ellens.newton@epa.gov

Natalie Maupin nmaupin@idem.in.gov

Leonard Merriam merriam.leonard@epa.gov

John Rigdon john.rigdon@element.com

Industrial Concurrent Session

Jim Collins jcollins@brenntag.com

Mike Gerardi mgerardi@brenntag.com

Dr. Bill Beranek, Jr. inenviro@iquest.net

Bruno Pigott <u>bpigott@idem.IN.gov</u>

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Tim Courtney tcourtney@epswastewater.com

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Tom Martin thomashmartin@comcast.net



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Our Team:

Justin Maxwell, Chet Graham , Jeff Graham

Office: Pam Graham

Thomas H. Martin—317.439.8350
President: Martha Martin—317.502-1380

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Signup for the Operator Challenge.

Persons desiring to compete in the Thursday 4:00 pm operator challenge should sign-up on the Operator

Challenge board in the Registration hall area. As in the past if all the teams fail to answer a question correctly, then the question goes to the audience to the first one holding up the number which is determined by the spotters. If you know the answer—hold up your number right away.

Save the Dates—visit websites for more details

August 15-17, 2018 IWEA Annual Conference,

Westin Hotel and Conference Center

September 19, 2018 **P2** Annual Conference, Marriott

North Hotel and Conference Center

April 2-4, 2019 **WITtec**, WYNDHAM Indianapolis West Hotel and Conference Center—we'll be back next year.

IIOA Awards

If you wish to be considered for an award, then please submit a written request outlining your experience and award to be considered for to: info@ijoa.net

Awards Available for 2019

Industrial Plant and Industrial Operator of the Year
Class D, C, B, or A Industrial Operator of the Year
Environmental Stewardship
Or mail request to:

Indiana Industrial Operators Association, Inc.

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"Do the Math"

The effluent from a treatment plant is 40,000 gpd and contains 0.02 mg/l of Copper. How much copper (pounds/day) is discharged?

A 1,000 ml "jar test" takes 1.2 mls. of mixed polymer solution to make a good settling floc. What (mls/min) should the metering pump deliver if the influent flow into the wastewater treatment system is 25 gpm?

Determine Efficiency

$$\% = \underline{\text{in} - \text{out}} \times 100$$

Determine the **efficiency** of these systems:

- a. influent = 330mg/l of nickel,effluent = 2.1 mg/l of nickel
- b. influent = 470,900 mg/l of solids,effluent = 170 mg/l of solids

| Е | F | F | L | U | Е | Ν | Т | R | Е |
|---|---|---|---|---|---|---|---|---|---|
| С | Е | Т | Τ | | W | | Α | ш | S |
| Т | Ζ | Α | L | Р | Т | В | D | Α | D |
| N | Χ | М | Α | R | G | 0 | S | ш | Z |
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| L | L | R | Е | М | Υ | L | 0 | Р | Ι |
| Е | Е | L | G | N | Α | Т | С | Е | R |

WORD SEARCH: Rectangle, Effluent, EPA, Elephant, Polymer, Fly, Electrode, pH, Pilot, Titrate, Radius, Pounds, IWEA, Gram, NOV, NOI, Plant, ORP, FOG, WITtec

Determine Tank Volume

Gallons = cubic feet x 7.48

Rectangular Tank, cu. ft. = length, ft. x width, ft. x height, ft.

Cylindrical Tank, cu. ft. = 3.14 x radius² ft. x height. ft.

Radius = ½ of the diameter

Calculate the **volume** in gallons of the following tanks:

- a. 25' long by 5' wide by 3.5' deep
- b. 20' long by 6' wide by 4' deep
- c. 120' diameter by 10' high



IIOA WITtec

Committee

*Chair, Jim Collins,

Brenntag, Mid-South Inc.

*Jaima Ballentine, HML

*William Boetcker III, Aqua Indiana

Debi Coughenour, Registration Manager

*Brad Crowe Sr., VP, IIOA

Jennifer Eiler, WITtec Photographer

Jim Gibson, IT Manager

Jeff Graham, IT Support Staff

Patsy Gibson, IIOA Staff

*Al Goodman, CDM Smith

Pam Graham, Exhibit Manager

*Carroll Koch, IIOA

*Ken Kaufman,

LSAI Laboratories, LLC

*Anthony Kunkler, Allegion

*Martha Martin, Business Mgr.

*Tom Martin,

Delta Chemicals & Equip., Inc.

*John Sanders, Keihin-IPT

*Steve Spurgeon, IIOA Treasurer

*Dan Stevens, Allegion

*Dave Taylor, IWEA -Board Member, AT Environmental

Jane Wheatley, Harwell Graphics

*Shane Wingler, Supreme Corp.

Operator Challenge Judges:

*Russell Eiler, Allegion

*John Wheatley, IIOA

David Turner, Turner Tech.

*denotes member of the IIOA Board of Directors



IWEA Municipal Pretreatment Committee

Chair, Cheryl Carlson,

Citizens Energy

Mark Curtis, City of Mishawaka

Erin Johnson, Connersville Utilities

Tamara Roberts, City of Bloomington

Lloyd Lamberton, Evansville Water & Sewer

Bill Boetcker III, Aqua Indiana

Lynn Brabec, City of Elkhart

Manuel Bueno, City of South Bend

Pam Kirklin, New Indy Container Board

Rick Conrad, BWQ Muncie

Duane Griner, City of Warsaw

Larry Keil, City of Goshen

Kevin Kredit, Shelbyville WWTP

Nara Manor, City of Anderson

Natalie Maupin, IDEM

Perry Mincy, City of Elkhart

Tim Orrill, City of Richmond

Becky Ruark, IDEM

Steve Swoveland,

City of New Castle

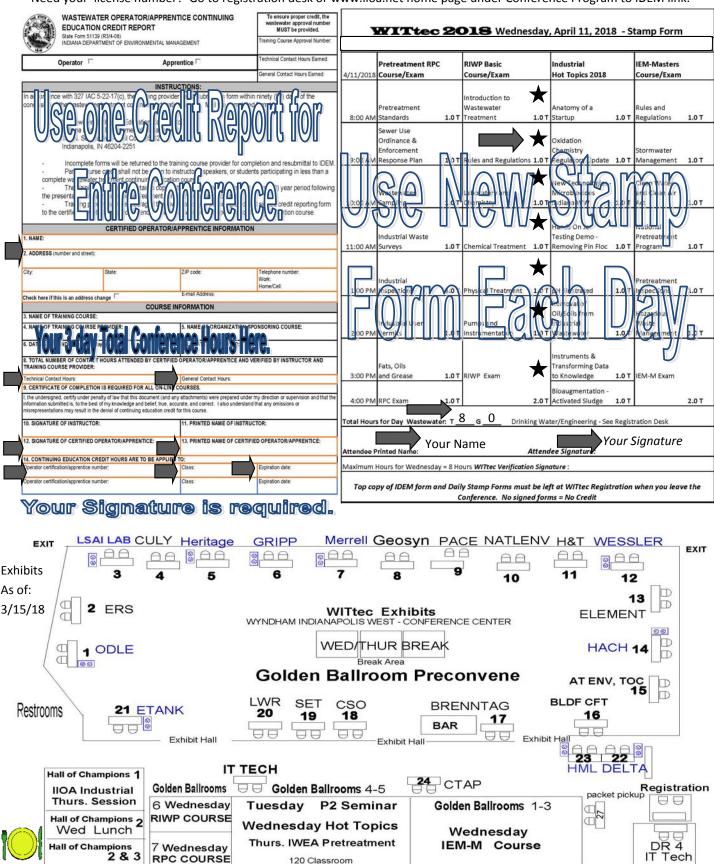
*Dave Taylor, IIOA & IWEA—Board Member, AT Environmental

DOOR PRIZES

OUR EXHIBITORS HAVE CONTRIBUTED TO DOOR PRIZES WHICH WILL BE DRAWN IN COURSES AND SESSIONS ON TUESDAY - WEDNESDAY AND FOR THURSDAY AT NOON AVAILABLE FOR PICKUP AT THE AFTERNOON BREAK. WE ARE USING OUR ATTENDEE LIST FOR THE DRAWINGS SO YOU WILL NOT NEED A TICKET. JUST LOOK FOR YOUR NAME ON THE DOOR PRIZE OR PRIZE BOARDS.

Please Complete Credit Form and Get Each Day-Each Hour Stamped and Sign Your Forms

Need your license number? Go to registration desk or www.iioa.net home page under Conference Program to IDEM link.



Restrooms

Thurs Lunch